

Education in America

A View from Sudbury Valley

Daniel Greenberg

Banyan Tree

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First Published in India 2013

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First Published in US by Sudbury Valley School Press TM

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ISBN : 978-93-82400-03-5

Layout & Cover : Shubham Patil

Printed at : Swadhyay Mandir, Indore

For Sale in Indian Subcontinent only

CONTENTS

FOREWORD

INTRODUCTION

Children Should be Free Citizens

PART I

LEARNING, CURRICULUM, AND THE GOALS OF EDUCATION

Stop Pushing Children

Freedom Nurtures Culture and Learning

Coercion is Obsolete in Schools

“The Basics” Re-Examined

Why Force Reading?

Why Force Arithmetic?

On the Pointlessness of Teaching Everyone Math

Is Cursive Writing Really Necessary?

Most History Curricula Do More Harm than Good

School Science Courses Don't Teach Science At All!

In Schools, Useful Subjects are Rarely Offered

In Schools, Relevant Subjects are Rarely Offered

Another Look at “The Basics”

“Taking Courses” vs. “Learning”

Real Learning Starts with the Curiosity of the Student

“Ethics” is a Course Taught by Life Experience

The Goals of Education in a Free Society
We Need Less Homogenization, and Much
More Variation, in Our Schools
What Do We Want to Achieve in Our Schools?
Tests: What They Are, How They Work
Standard Tests Destroy the Educational System
Tests on “Basics” Are Full of Absurdities
The Curse of the SAT's
Next Summer, Enjoy your Children –
and Let Them Enjoy Themselves!
Should School-Age Children Hold Jobs?

PART II

THE ORGANIZATION AND OPERATION OF SCHOOLS

Democracy Must be Experienced to be Learned
Democratize the Selection of Teachers
Democratize the Selection of School Superintendents
Only Student Involvement Can Bring a
Sense of Order to our Schools
Empower Teachers to Teach
American Education Must Not be Nationalized
Is There an “Ideal School” for the Nation?
If It's Broken and Can't Be Fixed –
Search for Something New and Better!
Time for Something Completely Different
Let's Find the Schools that Children Love to Attend

Beware of “Standardization” Dressed
Up to Look Like “Choice”
Academicians Are No Cure for Ailing Schools
Long-Range Planning Should Focus on the
Fundamental Goals of Education

PART III

SCHOOL FINANCES

Changing Times: When “More” Doesn't Work
No More Wasteful School Spending, Please
A Comprehensive Study Shows that More Money
Won't Help Schools Without Structural Reform
Zero-Base Budgeting is Long Overdue for Schools
Unproven Assumptions and Extraneous
Expenditures Drive Up School Costs
Standardization is the Chief Culprit in
the Runaway Cost of Education
All Parties in the School System Must Be
Involved in Setting Budget Priorities
New Mechanisms Are Needed to
Help Prepare School Budgets
Recycling Gets Schools Good Stuff Cheap
Private School Tax Rebates Are Not Good Public Policy
Private Schools Should Be Wary of Tuition Tax Credits
A System of Local Outright Grants Can Go
Far To Break the Public School Budget Bind

PART IV
OTHER BASIC ISSUES

The Bill of Rights Should Protect
Children As Well As Adults
The Message from School Dropouts
“Special Education” – A Noble Cause
Sacrificed to Standardization
“Special Education” – A Noble Cause Run
Amok A Longer School Year Won't Cure
What's Ailing American Schools

A FINAL WORD

The Passing of an Era

POSTSCRIPT

The View from Sudbury Valley

FOREWORD

Most of the essays in this book were first written as columns in the *Middlesex News*, beginning in late 1985 and extending into 1992. The intended audience was, and is, the average reader of a daily newspaper, an intelligent and thinking citizen possessed of good sense, who is entitled to full participation in our country's democratic process of self-government. I have always felt that whatever good emerges from a culture is grounded in the good of the individuals who make it up, and I have also always been confident that common decency and straight thinking will ultimately prevail where all opinions are freely aired.

Much of what I have written in these essays seems controversial and unconventional, and sometimes may look as if it was presented to be purposefully provocative. Appearances notwithstanding, I wish to make it clear that I have at no time set out to be confrontational or argumentative, but only to present views which I consider to be based on simple reasoning and plain, uncomplicated observation. Nevertheless, my perspective on education is deeply affected by my life's work at Sudbury Valley School in Framingham, and to acqui-

aint readers with the nature of this special perspective of mine, I have included in this book, as a Postscript, a talk I once gave on the principles underlying that school. Perhaps that should have been the Introduction; but the essays stand on their own merit, and the overview of Sudbury Valley School is necessary only for those who might be curious about what my own personal prejudices are in the field.

Often, when criticisms are made about some aspect of the current situation in education, the cry is raised: "Beware of the critics! They have an axe to grind, which makes their criticism suspect!" The idea seems to be that people who defend programs are somehow devoted to the objective truth, and their critics are somehow tainted with preconceptions.

Now, there is nothing more misleading than the notion of objectivity. The simple fact is that everything, absolutely everything, in the entire experience of the human race, is based on people's subjective appraisal of the events that surround them. Everyone without exception has their own personal "axe to grind"; or, put more delicately, everyone analyzes the world with the aid of their own private world-view, which they begin developing as soon as they are born (if not earlier), and never stop modifying till the day they die.

A person's model of reality is created out of a host of components, including his/her sensory inputs, social interactions, genetic predispositions, reflexes and instincts, biological drives, and intellectual constructs. As we have learned in the past century from anthropological research, there is literally nothing that can be said to be agreed upon as true by every member of the human species. One group's reality is

another group's fantasy. Even the supposedly objective truths of modern Western science have been shown to be phantasmagorias of scientists' imaginative minds – and the greater the scientists, the more “far-out” their creations turn out to be. It used to be that scientific “laws” stayed in place for centuries. Nowadays, a textbook is barely off the press before the contents are ready for the dustbin.

What this means in practical terms is something we all know instinctively: namely, that to deal effectively with another person, we must acquaint ourselves as much as we can with that person's predispositions. The fact that predispositions exist is not a barrier to communication; on the contrary, it is the starting point for personal interactions, as each person adjusts himself or herself to the world-views of those around them.

Getting down to practicalities, this means that when I criticize the prevailing educational system, I do the best I can to understand the realities of the people who built and sustain that system. Likewise, I realize – as does everyone else who reads what I write – that I am immersed in an altogether different approach to education, and I am perhaps foolish enough to believe that others might be interested in my perspective. Far from trying to hide my predilections, I am proud to discuss them openly, in the expectation that maybe someone else would benefit from knowing them, as I have benefitted from other people's experiences.

After all, to put it bluntly, I am not exactly working on Mars. The school I am associated with has been in existence since 1968, and is widely known throughout the world. We

are a private, non-profit organization, run as a pure democracy by the students and staff and parents – also not a concept completely alien to the American scene, I believe. Our graduates have gone on to excel in life, to be tradespeople, business owners and managers, artists, professionals, educators, just about everything. We have never received a penny of government or foundation money, nor do we do any fund-raising for donations. Our budget is entirely tuition-based, and it costs far less to send a child to our school than it does to educate a child virtually anywhere else, certainly in the public schools. So that's my “axe” to grind. The question is: So what? All the readers of these essays – including members of the school establishment – should care about is whether the arguments I am presenting could possibly make any sense to them in their own frame of reference. For some, the answer may be “yes”. After all, that's the way change begins, by people being willing to open their current set of prejudices to re-examination under the pressure of outside criticism.

I am of course grateful to the Middlesex News for giving me the opportunity, over these years, of presenting my views without alteration or censorship of any sort; and to the readers of that newspaper for continuing encouragement to continue writing my columns. I hope this collection will be useful in helping effect the transition now taking place between a system of schools designed for the industrial period of United States history, to an altogether different system appropriate for the post-industrial age we will be well into by the year 2000.

May 1, 1992

INTRODUCTION

Children Should be Free Citizens

I have a riddle to pose, but first I'd like to play a kind of verbal charade with you. I'll give a description of an institution, and you'll try to guess what it is. You get only one guess, but I'll try to make it fairly easy. Ready? O.K, here it goes:

It's usually housed in big brick buildings; the more modern ones are concrete. The basic population (I'll call them "clients") are confined inside, unless one of them gets a special pass. The clients are under the complete control of a group of people I'll call "overseers," who issue commands to the clients.

The basic rule of the institution is that the clients must obey the commands of the overseers or be subject to punishment (for example, additional confinement).

The clients have virtually no rights, constitutional or otherwise. The atmosphere is generally oppressive, and there is a basic tension between overseers and clients. Often, there is intensive psychological pressure imposed upon the clients. Many break under it, trying to escape, either by running away

of by resorting to drugs, alcohol or violence.

Freedom is unknown within the walls of the institution; personal initiative is, to put it mildly, discouraged. The overseers do not tolerate defiance or independence, but are otherwise rarely concerned with the relationships among clients. Obedience is all-important.

It is a broadly-stated hope that the clients will receive enough training during their confinement to prepare them for life outside the institution when they are finally let free. I say “hope” because, more often than not, this does not happen, and one of the major complaints one hears is that the newly-released ex-clients are generally not well-trained to do anything useful, and are often illiterate.

The clients, for their part – not surprisingly – almost all hate the institution, and dream of getting out. Periodically they will favor a friendly overseer, but the nature of the beast is to feel a deep antagonism to those who rule them with arbitrary power.

After a few years of exposure to the anger, hostility, and frustration of everyday life in an essentially repressive environment, most overseers either leave, try to move on to administrative post, or develop a protective shell of hardness and cynicism to cover the pain of their disappointment.

Have you guessed now what the institution is that I've described? You're right! It's called “*a school*”!

You're also right if you said “*a prison*”!

And that brings me to the riddle I promised you in the opening sentence. Riddle: “Why is a school a prison?”

To answer that one properly, you have to answer a bunch of riddles, all of which are equally puzzling.

Why are children forced to go to school?

Why are children forced to stay in school?

Why are children forced to learn in school?

Why don't school children have the same rights as adults?

Why aren't teachers free to choose what they teach?

Or, to put it in the most basic terms possible, why does the United States of America, the greatest democratic republic in history, the most powerful nation on earth, the model of freedom and fair play for all of mankind – why does this great nation subject its youth to a despotism which makes old King George III look liberal?

Don't rush to dismiss these questions. The answers are far from obvious. There was a time not too long ago when we treated blacks as slaves, laborers as paid servants, women as indentured household help. There was a time when the “self-evident” truth that “all men are created equal” referred exclusively to adult white propertied males.

It has taken much blood, and many valiant struggles, to get the word “men” to mean “adult human beings of all sexes and races.” Maybe, just maybe, it's time to extend the meaning to young people as well.

PART I

Learning, Curriculum, and the Goals of Education

Stop Pushing Children

The twentieth century has few claims to enlightened humanity, but one legitimate achievement has been child labor laws. The industrial revolution brought little children, as young as five years old, into the sweatshops and factories, often presided over by sadistic taskmasters and by an always-brutal system. The result was a form of pedicide: the systematic destruction of children, leaving a permanent scar on the human landscape.

The child labor laws changed all that. Cultured people were proud that they had restored to young people their *childhood*, a period of growth, play, and slow maturation. Even schools were affected, introducing into the daily grind such exotic activities as outdoor games, gym, and recess.

I guess it was too good to last. A culture steeped in neuroses can't simply declare itself healthy. The vision of all those little children romping about happily, without a care, was too much to take. So our wise men and educational leaders have decided to do it in. We are now told that we must force our children to learn specific academic subjects or skills virtually from the moment they are born.

The message is made quite clear. Good toys for infants must be educational, must develop motor skills, eye-hand coordination, or symbol recognition. Good day care centers should include instruction for toddlers. Good nursery schools and kindergartens should have well developed curricula.

Music instruction should start at three, swimming instruction at one, reading instruction, as soon as the child can see. We are told in no uncertain terms that parents ignoring these educational imperatives are neglecting their children, setting them up for failure in life.

Man's arrogance is boundless. Millions of years of evolution have developed finely-tuned survival mechanisms for every species. One of the most universal of these is maturation, a process designed to develop the full potential of every living being.

Growing up is different in detail for each individual, depending on genetic endowments and environmental circumstances. But one thing is common to everyone: the process, in order to take full advantage of the species' potential, must be a natural ripening, uninterfered with by clumsy intruders.

Why can't we leave well enough alone? Childhood is a beautiful state, praised by poets and philosophers from time immemorial. Free, unburdened, happy children seek on their own to integrate smoothly into the adult world – to be helpful, to return the affection they receive, and to grow up into productive citizens and good parents.

Are we really improving matters when we take those children and turn them into tense, guilt-ridden, high-strung little persons forced to seek adult goals they can't even comprehend?

Maybe "there oughta be a law": *No one shall push children to learn any skill or academic discipline before they choose to do so of their own accord.* Maybe the twentieth century should end, as it began, with society expressing its loving concern for its young.

Freedom Nurtures Culture and Learning

At a recent annual conference of the American Association for the Advancement of Science held in Boston, much was said about the evils of scientific illiteracy among the population at large. Many leaders stressed that universal scientific knowledge was crucial for wise public policy-making in a democracy, as well as for continued American pre-eminence in science and technology.

The blame for the dismal showing among American youth today was placed on our schools, at all levels. In this, most people can probably agree. The schools today are clearly doing a dismal job of educating children in most areas – character, social responsibility, and good citizenship, as well as reading, writing, history, and science. The more money we spend, the poorer the results seem to be. Smaller classes, newer facilities, more expensive equipment, and a veritable array of support personnel don't seem to help.

But the solution offered by the speakers at the AAAS convention was just a repetition of the same old formulas that have failed so often in the past thirty years: more classes in science, more requirements, more trained instructors to

add to the curriculum from first grade through college. What these leaders seem to forget is the root experience on which our country was based: America's origins stem from the belief that coercion is antithetical to personal growth. The remarkable way that our society has thrived proves that the greater the freedom enjoyed by individuals within a society, the greater the intellectual and moral advancement enjoyed by the society as a whole. America was based on this momentous principle, but our educational leaders seem as oblivious to this fact as any illiterate child is!

The cure to the problem of scientific illiteracy is to remove once and for all the underlying disease: compulsion in the schools. Human nature in a free society recoils from every attempt to force it into a mold. The more requirements we pile onto children at school, the surer we are to drive them away from the material we are trying to force down their throats. The real answer is *freedom* in the schools – freedom for every child, whatever their age, to choose the activities to which their innate curiosity leads them! After all, the drive of infants to master the world around them is legendary. Our schools must keep that drive alive by nurturing it on the freedom it needs to thrive.

Fewer compulsory activities are needed, not more – in fact, preferably none at all. People who wonder whether any of this could possibly make sense should look at the experience of Sudbury Valley School in Framingham, founded in 1968 on these very principles. The results are altogether remarkable, as we would expect – no less remarkable than a similar attempt made on a national level by thirteen small, poor colonies two centuries ago!

Coercion is Obsolete in Schools

One of the more puzzling phenomena on the current educational scene in America is the increasing popularity of *coercion*, in one form or another, as a legitimate tool to be used in the furtherance of educational goals. At a time when the entire world seems ever so slowly to be gaining awareness of the fact that force is no longer an effective method of achieving lasting aims, one segment of our culture – a very important segment, charged with preparing the future generation – seems stubbornly headed in the opposite direction.

In fact, as we pass through the last decade of the 20th century, we are witnessing phenomena that no one in his right mind a mere forty years ago would have dreamed could happen. Who, after the close of the Second World War, would have said with any conviction that the use of force to settle disputes between superpowers would become a thing of the past? Who, during the Korean War, would have guessed that even the largest and most modern of military establishments would soon be powerless to impose their wills on even the tiniest nations – Cyprus, Lebanon, Nicaragua, Afghanistan, to name a few? Who, in the heyday of Stalin's

power in the late 40s, would have been foolish enough to predict that some of the harshest Communist dictatorships would be pushed aside by the populations they once ruled with an iron hand? True, the painful remnants of brute force are abundantly evident in the world today, in South Africa, in Central America, in Eastern Europe, in China, in Southeast Asia, in Iran, in various parts of Africa. But everywhere, even the people in power know that the bell is inexorably tolling for unbridled authoritarianism, and people of good faith and great patience are laboring quietly and diligently to remove force from human affairs.

All this is obvious to the careful observer, who can see the forest encompassing the trees. But even as the world moves to accept freedom of speech, freedom of choice, and open debate as more fruitful methods for solving problems and advancing the human race, people responsible for the schooling of our children are ever more vocally demanding the imposition of severer discipline and restrictions. I cannot make any sense out of it, can you? If coercion isn't working in any other domain, what makes educators who have been born and bred in the United States think that it will work in schools here?

I am as aware as the next person of the problems facing schools. In a nutshell, they are not producing the goods. Their clients, the students, are fleeing from them in record numbers; those that stay do not seem to be doing what is required of them. Graduates are often asocial, amoral, and incompetent. A general malaise pervades the whole system, from administrators to teachers to students. What we have is

the typical symptomology of a system about to collapse from obsolescence and irrelevance. No remedy applied during the past thirty years has worked. No magic cure is visible on the horizon. All this is depressing news.

What is happening among educators is that they are flailing about for some way out of their hopeless situation. Understandably, instead of revamping the whole school system from top to bottom, as they should, they are looking for yet another band-aid to apply. Not so understandably, the direction in which many of them seem to be moving is that of increasing the pressure on the students – exactly the kind of move that everyone criticizes when it's done in any other context. Thus, we see suggestions ranging from stricter discipline, more homework, more required courses, more control of free time, more punishment for poor academic performance, to revocation of driving licenses for dropping out of school. None of the lessons of the past or the present seem to affect the people making these proposals. Where have they been all these years? Did the educators making these proposals pass their history courses? Did they do well in Current Events?

I assert as a blanket proposition that in our schools, as elsewhere, every proposal for reform that is based on any form of coercion whatsoever is doomed to failure, and is wrong in its essence. This is a litmus test that can be applied across the board. It is time that the public make it clear to School Committees and administrators that such proposals are not acceptable, and should not be considered. I do not believe there is any simple panacea to our current school

problems, but I do know that whatever we try should be based on a respect for the freedom of students and teachers to choose their paths and to speak their minds.

“The Basics” Re-Examined

So much has been written about the importance of a good basic curriculum in schools, that it is almost impossible to have a rational discussion on the subject. The belief that there is a body of knowledge which every child must master in order to become a productive adult in the modern world is a sacred cow, on the altar of which the freedom, creativity, and spontaneity of several generations of our finest youth have been sacrificed. I am going to ask you, the readers of this essay, to use your individual judgment and native intelligence as tools for re-examining the educational dogma that underlies our schools.

I am going to start with a simple assumption: virtually all of you, as well as your friends and relations, are functioning as successful members of our society. You are holding decent jobs, working hard, raising families, participating in various social organizations, and generally holding your own in the struggle that is man's lot on this earth. I can make this assumption without knowing you all personally, because the large picture proves it to be true: you and I belong, collectively, to what is by far the most advanced society known to his-

tory. To be sure, we all face enormous problems in our lives, individually and jointly, but all together we are the freest, healthiest, wealthiest, most long-lived, safest and most peaceful conglomerate of persons ever to grace this or any other continent. So no matter how much room there is for improvement (and we can all agree that there is room aplenty!), the fact that we have maneuvered our culture to its present position argues mightily for the thesis that the quarter of a billion or so of our fellow countrymen haven't done too badly, certainly not relative to any other contemporary or past known culture.

Now, part of the path we all traveled has led us through classrooms during our childhood years, for a period of anywhere from ten to twenty or more years of schooling. And much of this time was spent learning material which, at the time, was considered "absolutely essential" for us to know – the "basics". Although the list of subjects differed from place to place and time to time, it is safe to say that for virtually all of us this included reading (especially prose fiction and poetry), writing (all sorts of essays, such as "What I did last summer" or "Why the Triple Alliance Failed"), mathematics, social studies, American and world history, science, and physical education.

Now, if any of this material that we struggled so hard to absorb was really as essential as it was claimed to be, we would all be using it actively in our present lives, either at work or at home or in some leisure-time activity. I mean, that is what the claim of being "essential" was all about, isn't it? So I will now ask you all to take part in a simple exercise, that

won't take much of your time and will, I promise, produce richly rewarding and surprising results. Here it goes.

Settle down in a comfortable chair, and set aside any distractions for a while. Relax. Allow yourselves to exercise your memories and your judgement, calmly, without fear of “getting the wrong answer” to what I am about to ask. OK. Ready? Try to think about the answers to the following questions:

When was the last time you read a “classic” novel or poem? (No cheating here, please. I don't mean a best-seller, or a romance, or a mystery. I mean a classic!)

When was the last time you used long division? Long multiplication? (The key word is “long”; calculators don't count.) Linear algebraic equations? Quadratic equations? Trigonometric functions? (Remember those? Sine, cosine, tangent, cotangent, secant, cosecant. What? You don't remember??!!)

When was the last time you wrote a book review, or an essay on what you did recently, or a story?

When was the last time you thought about how the Indians raised corn or built tepees? Or about Thomas Paine, or Benjamin Franklin, or James Madison, or William Henry “Tippecanoe” Harrison? (Did you have to look that one up?) Or Andrew Johnson, or Grover Cleveland?

How about the last time you ruminated on the lessons of the Congress of Vienna and its famed leader – what was his name again? Or the Franco-Prussian War of when-was-it? that changed the face of Europe and led directly to two

World Wars, pitting Bismarck against Emperor Louis Napoleon? And what was it that made World War I so very essential to know about?

Now that you've warmed up, turn your mind to the science you learned back then in school. What was it about? Do you find yourself constantly referring to Newton's laws, or the interior of dissected frogs? Have you mixed chemicals recently to produce acid-alkali reactions?

It's time to stop. We could go on for a long, long time, steadily gaining in the realization that *it was all a lie*. All that stuff we were told we had to know because it was an absolutely essential foundation of knowledge for modern-day adults *wasn't necessary at all!* We were duped. In fact, the odds are that the majority of adults would miserably fail most of the elementary-school, junior high, and high school tests given today or when we were students, if we had to take them today. That's because the material covered in those tests is just plain useless to our everyday lives, and we've very wisely cleaned it out of our brains in order to make room for more important stuff. And by the way, even the *teachers* of this stuff wouldn't do any better if tested (on anything other than the subject they teach). Why do you think teachers' groups object so vehemently to re-examination after they've once been certified?

The so-called "basics" of school curricula are false gods which we worship at our own great expense. We throw our gold and silver at them in ever-increasing quantities, but they always demand more; and the people who are alleged to benefit from their ministrations – you and I and our children –

find ourselves holding an empty bag of forgotten promises and useless trivial pursuits. How long will it take us to set aside these idols and look for some simple underlying truths to replace them?

Why Force Reading?

Were you ever forced to eat broccoli when you were a child? Or carrots? Did you grow up hating them, having nightmares about dinner plates heaped high with brussels sprouts and kale?

Everyone likes to eat. Nature has seen to it that this is so, for survival. But even such a popular pastime can be made repugnant through force feeding, because more than anything else in the world, people hate coercion.

We Americans know this better than anyone. We are the land of the free, and our freedom has made us the most creative, vital, innovative nation on earth, ever.

If you think about this for a minute, you'll understand why "Johnny can't read."

Man is by nature a communicator. Many scientists feel that our ability to create and to use language effectively is what distinguishes *homo sapiens* most clearly from lower animals. People love to talk, and children will even invent whole languages if they are raised in isolation. Nothing absorbs more energy and concentration in infants than the effort to learn how to speak – a struggle children initiate on

their own and pursue relentlessly *when they are ready*. And we all know that once they get going, it's all but impossible to shut them up!

The invention of writing many thousands of years ago gave mankind a whole new dimension in communication. Left to their own devices, people have been enjoying the written word ever since. So here is a human activity, *verbal communication*, which people love to do, and which reaches its highest form in the written word.

You'd think that educators would leave well enough alone. As with any other human passion, all you have to do is make the stuff available, and wait. When the children are ready to go after it, they will, and nothing will stop them.

Instead, we are impatient. We sit our children down when they reach the age at which *we* think they should read, and force it down their throats. The result is that a lot of them come to hate reading, many never learn, and some 10-15% of them develop "reading disorders" such as dyslexia, for which they pay dearly – and we too pay ever so dearly with expensive reading therapists and remedial programs.

Not long ago, in 1968, Sudbury Valley School decided to take a fresh look at reading. Children were left alone and never forced to learn how to read. The result was stunning. During the years that have elapsed since the school was founded, all the children learned how to read, but at widely different ages. Some learned at 4, others at 6, others at 8 or 9 or even later. By the time they were teenagers, you couldn't tell the difference between early readers and late readers. No one hated reading, all did it quite well, and there have been

no observed functional disorders at all.

Isn't it time for other schools to take a new look at reading? Force feeding doesn't work. Neither does force reading. Is that so hard to believe?

So please pass the vegetables. And could you also lend me that book when you've finished with it?

Why Force Arithmetic?

I had a nightmare the other day. I was shopping in a supermarket, and every line was half a mile long. It took a week to get to the register, half an hour to check out. The problem was, all the cashiers were calculating the orders by hand, on legal-size ledger pads.

Luckily, I woke up.

Not so luckily, our schools of education are still asleep. My nightmare seems to be their dream! Every year, thousands of teachers are trained to teach tedious processes of hand addition, carrying, subtraction, borrowing, long multiplication and division, fractions, decimals, square roots, and so on.

Every year, millions of children are put through the paces their teachers have learned. New techniques for performing these tasks have developed as fast as the old ones fail. The whole process is about as pleasant as administering castor oil.

Who needs math? Hardly anyone. Professional mathematicians or computer operators, for example. But today, without exception, every operation that requires arithmetic

has been relegated to machines.

Automatic cash registers add, multiply, divide, subtract, keep track of inventory, print out a list of items bought – they even read the prices off the bar codes. Hand or desk calculators make it possible for us to figure everything quickly and accurately, without touching a pencil or paper.

Computers do all the work in bookkeeping, accounting, engineering, science and finance. In fact, in virtually any field of human endeavor in this country today, a person who uses the math learned in school would be a liability!

Imagine the scenario. A job opens up in the Mortgage Loan Department of a local bank. I go for the interview with the bank's personnel director, dressed nicely, putting my best foot forward. "Good morning," I say, "I'm here for the job you advertised. Let me show you what I can do." I then proceed to demonstrate my skills: I add long columns of figures, calculate percentages, and even use the compound interest formula to find the total payments on a loan. (How many people remember that formula, which appears in all the school books?) The director smiles pleasantly, fidgets, and shows me the door.

The job goes to the kid who has learned to punch a keyboard.

Let's face it. The math taught in schools is virtually all useless. Ordinary people out there in the real world know it. When will the teachers' colleges and test writers find out? If experience is a guide, they'll be the last to get in on this "secret."

On the Pointlessness of Teaching Everyone Math

Again and again, extensive tests and studies of high school graduates have produced the obvious, predictable result – namely, that most of our young scholars don't know tiddley-winks about mathematics. Maybe they can add and subtract, sort of, perhaps a little multiplication and a smidgeon of division; but not much more.

The immediate knee-jerk response to studies such as these is one of horror. “Oh, how we have failed in our schools,” moan various community leaders; “We need changes, reforms, modifications, to be sure that our youngsters learn all the advanced math they need to get along in the modern world. Look at the Japanese schools, etc. etc. etc.”

Well, for starters, I am thoroughly sick of hearing about Japanese, Taiwanese, Russian, German, Swiss, French schools, and all their friends and relations. For all their wonderful schools, they have not managed to produce societies that are in any way more attractive than ours. The sense of individual freedom, personal realization, creativity, verve, optimism, life, tolerance, compromise, open-mindedness,

and all those other incredibly wonderful traits that make up the American cultural world-view – these are notably missing or, at best, on the back burner in all those other supposedly model countries. If their schools are doing such a great job, the results don't seem to last long enough to affect the daily lives of their citizens.

But the real question is, who cares about the results of studies such as these? Isn't it just a bit hypocritical to complain about the mathematical ignorance of high school graduates, when virtually all of the adult population in this country (and indeed the world over) know just as little of that subject? Does anyone seriously believe that if the entire teaching and administrative staff of your local high school was tested for their knowledge of math, the results would be any better than those for the students? Excepting math teachers, and perhaps physics and chemistry teachers, do any of the rest have any reason to know or use math in their daily lives or professions? Would the managers of large corporations, or the partners of leading law firms, or the members of state and national legislatures, do any better? How many of them could handle this typical text book problem: "The alcohol concentration had to be exactly 52%. How many milliliters of a 60% solution should be added to 200 ml of a 20% solution to get the proper concentration?" I mean, how many people could give you an idea of what a milliliter is, let alone how to calculate concentrations of varying solutions? WHO CARES?

Talk about the emperor's new clothes! Some self-appointed group of educators decides what *tiny* part of the expanse of mathematical knowledge ought to be taught to

everyone in school, and everyone says “Amen” and puts it into the curriculum. Much more is left out than put in, but nobody knows any better, and nobody stands forth and says, “This is nonsense. The areas you have chosen to teach are just as irrelevant as the others you left out. The emperor has no clothes on at all!”

Well, I guess I'm saying it, as loudly as I can. I'll say it again, and again, and again, as long as I draw breath: There is no point in teaching 99% of the math curriculum taught in schools today, certainly not to anyone who isn't intensely interested in the subject. I have as good a training and as extensive a knowledge of mathematics as you can get in a Ph.D. program at a fine university, so I am not talking about a field of which I am ignorant. The fact is that the effort to teach this material is futile, wasteful, and bound to lead, as it has, to a general hatred of mathematics and a resentment of the meaningless coercion practiced in our schools.

Is Cursive Writing Really Necessary?

Few things are more wasteful than the time spent in our schools teaching children the art of cursive writing. Nowadays, no adult in their right minds would use cursive to communicate anything of importance to anyone.

It's not hard to see how the subject got into the schools in the first place. One hundred and fifty years ago, when the wonderful American ideal of mass education began to become a reality, one of the keystones – one of the “three R's” – was teaching the ability to write. Back then, the only way to put your thoughts on paper was by hand, so cursive writing was a must.

We forget easily how recent most of our great technological advances are. Up to a mere century ago, there were only two ways to write: by hand, and by printing press. Printing was laborious, and certainly not practical for everyday use. Imagine what this meant in real-life terms!

When diplomats had to communicate, they wrote by hand. When Congress passed laws, they had to be embossed by hand. When policemen wrote reports, journalists wrote articles, presidents wrote speeches, advisers wrote recommen-

dations, college students wrote essays, scientists wrote research papers, authors wrote books – it was all done by hand!

John Stuart Mill once sent to a close friend a manuscript of a new book he had written. As so often happens, the package got lost in the mail. That was it for that book! He had to rewrite it all from scratch, by hand of course.

The slowness of written communication before the twentieth century is mind-boggling. In such a setting, good handwriting was absolutely essential for everyone. If you couldn't write clearly, or read other writing, chances were you were as isolated as a complete illiterate. No wonder schools stressed the techniques of cursive writing.

The problem is, we are no longer in the nineteenth century. In fact, we are about to leave the twentieth century, but you would never know from the way such things as cursive are still pushed down our children's throats.

To say that this is useless is an understatement; it is often downright harmful. Forty years ago, when I entered my freshman year in college, every teacher let us know that any paper submitted in handwriting would automatically lose a grade. That was a generation ago. Today, they rarely bother to mention it since few students would dare to try.

The fact is, everyone literate today has to know how to type. The schools do nothing to assure that children gain this skill. Hardly any students entering middle school know touch typing, and fewer than one in ten high school students have learned it. Worse still, most of those who have learned typing

have done so in some sort of secretarial program intended for students, mostly girls, who are supposedly at the lower end of the talent scale!

The result is that most adults are as helpless in real-world written communication as were their forbearers a thousand years ago. In a pinch, they may “hunt and peck” with two fingers in order to type out a document, but for the most part they rely on a small band of professional typists or word processors, just as people for centuries relied on professional scribes.

Teaching everyone to write cursive is a massive waste. On the other hand, not encouraging everyone to type is tantamount to a crime. Parents should flood their local school committees with letters protesting this impossible situation. But please don't write the letters – type them!

Most History Curricula Do More Harm Than Good

Let's take a closer look at one of the terribly important and essential "basics" that the educational establishment feels are absolutely necessary for every child to learn in school. Let's consider American History, which is taught pretty much everywhere in the upper elementary school grades.

Anyone who takes the trouble to examine the various textbooks produced by the dozens of publishers in the education field will notice one shocking fact almost immediately: *virtually all of the texts (and the curricula that use the texts) are identical, down to the last detail.* There is no variation at all to speak of. The sameness is mind-numbing. If a dictatorial regime had sought to standardize elementary education, as has so often been done, it could not have produced a more homogenized product than these texts.

Now this phenomenon is, by any reasonable standard, the exact opposite of education's primary goal, which is to encourage children to pursue their curiosity and develop their powers of critical thinking. Surely, no one imagines that critical thinking applied to history will yield *one standard ver-*

sion. In fact, at the college level, there exist hundreds of textbooks which differ greatly from each other in approach, content, and message. College courses are as varied as the professors who teach them, and there is no cause for concern that future historians trained in our universities will end up being carbon copies of each other. But at the formative level of elementary education, to which every single child in the country is exposed, the present school system seems perfectly content to put out mass-produced clones who all spout the current accepted wisdom. And the move towards so-called “national standards”, championed by all political parties, threatens to make matters even worse by locking the uniformity into place.

What's worse, when we look at the actual material being studied, we can only recoil with horror. Consider, as an example, the textbook “Our United States”, published by Allyn and Bacon as part of the Follett Social Studies series. (This book is no different than any of the others, but I had to pick *some* book as an example.) It devotes about 300 pages to the history of our country, obviously limiting itself to the important highlights.

Now, the first thing we notice are the omissions and peculiar deficiencies. Item: Not one word is said about the virtual eradication of Native American (Indian) tribes and their culture, one of the great crimes of all time. Item: Not one word is said about the ghastly condition of immigrants and industrial workers in the late 19th century and first part of the 20th, which led to the formation of unions, also not mentioned, nor is there a word about the great conflicts

between labor and management that lasted over three generations. Item: The Civil War, the costliest and most devastating war in our history, the effects of which are still very much with us, gets a bare three pages, mostly platitudes. Item: World War I, which turned our country from a provincial backwater to a major world power, rates about one page. Item: World War II, an epoch-making event by anyone's standards, rates three pages of generalities, with one paragraph on the atomic bomb. Item: The depression, which not only caused immeasurable suffering to tens of millions of persons but also permanently changed our concept of federal government, rates a half page. Item: The Cold War, which molded American life for over forty years, rates less than a page. Look back at this list. Less than nine pages out of about 300 on all the subjects itemized. So much for the basicness of the "basics"!!

Actually, we should be grateful for the omissions, when we examine the kinds of things written about the subjects that *are* included. Let's look at how the founding of Rhode Island is described: "Roger Williams spoke out against many of the rules set by the Puritan leaders of the Massachusetts colony. . . . Williams left Massachusetts. Along with some of his followers, he founded the colony of Rhode Island." Spoke out against many of the rules? It sounds like someone objecting to a dress code or room-pass regulations. Is that the best that can be said to children 10-12 years old about the first time in modern history that any Western state was founded on the principle of religious freedom, so dear to us today?

Or consider the discussion of slavery. It is defined as fol-

lows: "Slavery is the ownership of people by other people." Period. No elaboration or explanation. Needless to say, this sparse sentence does little to convey the content of the dreadful institution of slavery. We read on to discover that "most slave owners thought of them as property." MOST? How about the entire country, slave and free? How about the Supreme Court, the Congress, the state governments? Who didn't? Now let's see about the horrors of slavery. This is how the account begins: "Slave owners often claimed that their slaves were happy. The slaves certainly would not have agreed." That's it, folks. Maybe slaves were happy, probably they were not. End of analysis. *This is what our children are being taught in their terribly important fundamental courses on American history today!* As for the Southern backlash against Reconstruction, which created patterns of segregation and discrimination that are still with us, we get the following: "Once the [Northern] soldiers were gone, white Southerners gained control of most of the State governments. . . . Some southern legislatures passed laws that made it almost impossible for blacks to vote." Again, the insidious use of the words "some" or "most", which are not only incorrect, but are introduced as linguistic weapons to deflect attention from the uniformly repressive viciousness of the white supremacists.

As for one of the root events of our historic relationship with Latin America, here is what our children are told: "President Theodore Roosevelt decided that the United States should build a canal. . . . Colombia refused to give the United States the right to build the canal. So President Roosevelt helped the people in the Isthmus of Panama

become an independent country. The new country of Panama quickly made an agreement that allowed the United States to build a canal.” Aside from the blatant inaccuracies of this statement – for example, no President, not even Teddy, could “decide” such matters, at least not according to the Constitution in force since 1789 – it is the content that is so shocking. One is left with the impression of a transaction on the level of trading candies after Halloween, with an added note of benevolence, where our country is depicted as being so very “helpful” to the “people in the Isthmus”. Even United Fruit Company would not have dared go so far in producing white-washing propaganda.

Everywhere, in this and other similar books, *critical thought is entirely absent*. The authors and educators who use these materials show little understanding of the level of sophistication of children growing up these days – children who regularly look at TV news, documentaries, and programs dealing with all sorts of complex human issues; children who are surrounded by heated debates on the destruction of the planet, AIDS, drug use, alcohol abuse, taxes, civil rights, and more.

Let's face it. The “basic” history taught our children is neither basic nor history. It is a disgrace. Tomorrow's youth would be better off without it.

School Science Courses Don't Teach Science at All!

When educators discuss the “basics” that all students have to be taught in school, no subject receives more intense support than Science. We are told that of all things that are important for youngsters who will grow up to be adults in the 21st century, knowledge of science ranks first. This is the standard justification for vast science curricula, from elementary school through high school, supported by expensive textbooks and equipment, staffed by an army of teachers.

It will therefore probably come as a surprise to most readers that virtually everything we have been told on this subject is a pure myth. *Nowhere in our schools today is science being taught.* We are being hoodwinked.

Here's the scoop. Science as an enterprise of the human intellect is distinguished by certain fundamental characteristics. Let me list the most important ones:

1. Scientists must first and foremost be careful observers, noting meticulously the behavior of whatever it is they are studying. They must never obfuscate or deny the data.
2. Scientists must learn to tease more information out of

their subjects than is available at first sight. They must learn to design experiments that ask questions which can yield meaningful answers – answers that are *interesting* to them. And they must carefully and honestly record the answers, regardless of whether or not they are what the experimenters expected or hoped for.

3. Scientists – especially good, creative scientists, the kind we are eager to have in abundance – must learn to use their imaginations freely, to design meaningful new explanations for new observations. To do this effectively, they must keep their minds as open as they can be, and minimize their burden of prejudices and preconceptions.

Good scientists, then, must be intensely curious, careful, honest, imaginative, and flexible in their thinking.

To make these points even clearer, let's contrast science with the discipline generally considered to be its polar opposite: Religion. The differences virtually jump out at you. The starting point of religion is *faith*, which must perforce be beyond (though not necessarily in contradiction to) rational analysis. Religion is based on a set of dogmas, generally believed to be divinely inspired, and certainly not derived from any mere exercise of the human intellect. Great theologians must be well versed in intricate traditions often handed down for thousands of years, and elaborated on by hundreds of great thinkers before them. Innovation in religion, to the extent that it occurs, takes place through Divine intervention, not through human endeavor.

Now let's take a look at what passes for science instruction in the schools today. Lo and behold, it is a wolf in

sheep's clothing! Science is everywhere presented in the form of religion!

The main, indeed the only significant activity pursued in all science classes is the teaching of the latest current scientific theories in the form of dogmatic truths. The textbooks are the repositories of these dogmas. From the books, children are taught *how things are*. They learn the vocabulary of science (“scientific literacy”!), the “laws” of science, the heroes of science (science’s equivalent of holy men or saints). The very use of the word “law” is a dead give-away: regardless of what real scientists may mean when *they* use the word, teachers and students of science in school take the word “law” to mean a strict description of how or why something happens. Scientific laws are understood to be true, unchangeable realities. Few people realize that virtually every “law” written in today’s textbooks differs completely from the “laws” that were written in textbooks a century ago; those, in turn, bore little resemblance to what appeared as “laws” two centuries ago; and few scientists will disagree that the “laws” that will be current one hundred years in the future will have little if anything in common with what the schools teach as scientific truth today.

The object of science courses as taught in the schools is to cram into kids’ heads as much information as possible about the latest thinking of scientists. The students are given no choice about accepting or rejecting any of this material: it is represented as truth, and when they are examined, students are expected to repeat it and regurgitate it in the same form that it was given to them. In fact, one of the main features of the much-ballyhooed national standards the

President and Governors are pushing is the introduction of a series of examinations on science given to all students nationwide, in order to promote the widest possible absorption of the latest scientific dogmas.

Worse even than the classroom lectures and the textbooks are the various science laboratory courses and fieldwork. Although virtually every lab manual goes on and on about the importance of observation, careful recording, etc., the fact is that all lab experiments are prescriptions *for which the "right" outcome is known in advance* – an outcome that students are expected to get, or else. Thus, a student who carefully measures everything he is told to (already a sad departure from real science) and finds that the acceleration of gravity, according to his experiment, is 35 ft/sec/sec, is not praised for having discovered a new fact, but is told that he has messed up the experiment, since the right answer is 32 ft/sec/sec. Not only isn't the lab science, it is worse: it gives the exact wrong impression of what science is, by making the students believe that even before they begin, there is some "right" answer that is pre-ordained. What a far cry from discovering truth through unprejudiced observation!

The last thing any science classroom is set up to accommodate is a group of students who are genuinely curious about their surroundings and want to set about studying things that really interest them on their own initiative. Nor can it handle students who have their own ideas about how to explain things, and who want to play with these ideas, discuss them, test them out. Such activities will not yield good test scores, won't prepare students for Achievement Tests or

Advanced Placement – in other words, won't produce any of the results the schools care most about. The simple fact is that students who would do things that really trained them to be good scientists would not fit into the schools' massive science programs at all.

All those claims made by educators about the importance of science in the curriculum are baloney – expensive baloney; and they produce the opposite of what they promise. They produce passive students who do what they're told, memorize what they're supposed to, work hard to get the results they are told are correct, and totally suppress their curiosity, their imagination, and their critical abilities. The scientific enterprise in this country would probably be way ahead of the game if the existing science instruction at the pre-college level was abolished altogether.

In Schools, Useful Subjects Are Rarely Offered

In the nineteenth century, schools for the upper classes prided themselves in teaching subjects that were totally impractical.

The main body of the curriculum, right through college, was Greek and Latin studies, and the young blue-bloods would struggle to translate Ovid and Cicero, Homer and Aristotle, and to write poems and essays in these arcane tongues. Only the stupid ones ever learned a modern language – out of desperation. Winston Churchill, considered by his teachers to be learning-disabled, spent his whole high school career in the “dummy” class learning English!

The great revolution in education that started in this country 150 years ago was based on the notion that school should be relevant, that it should prepare children for a productive adult life in the modern world. Back then, this meant the “three R's” for everyone, a curriculum that was miraculously successful in creating a nation of economically viable adults, those who built and manned the world's greatest industrial machine.

The problem is, we are no longer in the nineteenth century, but the schools seem to have missed this simple fact. It hardly takes a genius to look around and figure out what is important and relevant in the world today, and what will likely be central to the coming generation.

Let me be specific, with a few examples. The central reality of our era is the computer (just as the production-line machine was the central reality a century ago). Most adults are afraid of computers, but kids – especially young children who have not yet been exposed to too much schooling – love computers, and thoroughly enjoy being around them.

What could be more important than computer operation, computer literacy, and the basics of hardware and of programming? We must at least make these fields readily available to everyone from the earliest age.

With the computer as the center-pin, so much else falls into place. Mathematics becomes more realistic, using the computer first as a calculator, and then as a tool in problem solving. Writing becomes practical, with the computer keyboard serving as a typewriter and with word-processing as an easy and natural adjunct.

The principles of bookkeeping, accounting, and business planning become delightful to learn and handle, with the aid of a multitude of practical programs already available. Imagine how much more useful an education would be if it contained these elements!

Imagine how much easier it would be to keep students interested in school if they thought it had something to do

with real life!

Even the basic *practical* needs of modern life are not addressed in school. Virtually everyone has to drive a car in our country, yet the basics of auto mechanics, the principles of car design and operation, are not part of most school programs, not even as electives.

We are told, rightly, how crucial it is that everyone know CPR, but that is rarely offered in schools. Personal health and hygiene is almost never taught with the real needs of modern youngsters in mind.

Rip Van Winkle slept for twenty years, but at least he woke up. Our schools have been slumbering for over a generation. What will it take to arouse them?

In Schools, Relevant Subjects Are Rarely Offered

One of the most disturbing features of our schools today is the sheer unreality of their offerings. Life is exciting, challenging, risky, full of conflict; it is exhilarating and depressing. Schools, unfortunately, offer their students a weak, boring reflection of life.

Small wonder that young people, once they emerge from the cocoon of the classroom, get jolted by what they see, and often end up engaging in wild excesses or following bizarre pathways. It is the unrelenting blandness of school that is so oppressive. Parents should expose themselves to the textbooks and course notes their children use, in all grades.

A good place to start is beginning readers, for the early elementary grades. Now, the main reason anyone wants to read is to be able to find out interesting things from the printed page. If there's nothing written that grabs the child's attention, there's no point in making an effort to learn how to read. All this is pretty obvious. Except to the people who write reading textbooks.

What kinds of things interest kids? To begin with, *differ-*

ent things attract *different* kids. You might expect reading primers on cars, on snowball fights, on dolls, on clothes, on siblings (and sibling problems), on babies, on divorce, on marriage – yes, and also on fighting and crime and war.

But more important than the subject matter is the level of discourse. By the time kids are ready to read, they are pretty darn sophisticated. They don't want to be addressed like three-year-olds. They want real information, meaningful, useful. A technical manual on how a bicycle works would be far more exciting to the average child than a silly story about a child and his or her bike.

Probably the worst offenders are history courses. These are supposed to prepare the child for dealing with current world problems, by setting them in the perspective of history. Where is the perspective to come from, if the history carefully avoids the hard questions?

In studying ancient history, where are students to discover that the idea of world conquest was invented by Alexander the Great, the star pupil of the greatest philosopher of all time, Aristotle? It is terribly important to understand that the drive to conquer the world is not a common one, nor an obvious one, nor is it related at all to the never-ending wars of neighborly conquest that constitute the warp and woof of human history.

It was a new concept, this Alexandrian notion that one should rule the world. It entailed reshaping the entire fabric of how people thought about social organization. These are deep questions, important ones, for in all of history only a small handful of national leaders embraced this grandiose

notion, and *four of them* lived in the twentieth century! There is no conceivable way a young person can deal with the enormous problems facing mankind today if the meaning of world conquest, first introduced by a brilliant Ancient Greek, is not thoroughly explored and understood.

How little is taught in school about the complexity and irony of life! Children are not taught how the Catholic church for over a thousand years was Western Culture's main repository of scholarship and learning, possessing the wisdom of the past and encouraging the moral and intellectual growth of mankind; nor are they taught how the same Church, in its zeal to protect its supremacy, persecuted its opponents through the awful tool of the Inquisition.

Students do not learn how our country, ravaged by the Depression in the early '30s, teetered on the brink of chaos, reaching out now to fascism, now to communism, until its soul was rescued by the dynamic optimism of Franklin Roosevelt; nor do they learn how this same President used the people's desperation to transform the Federal Government into a center of power never dreamed of by the Founding Fathers.

Where in the school curriculum do students confront and grapple with the seductive attraction of the Seven Deadly Sins, and all their friends and relations? Where do they struggle with the reality that, as often as not, "nice guys finish last"?

The only way schools will survive is by overcoming their staggering irrelevance. Every modern religious denomination has long realized this, as have all the political movements. It

is no mystery why young people are attracted to churches and sects, to movements and partisan action groups. When will the schools wake up?

Another Look at “The Basics”

When I first wrote suggesting that the subjects considered to be “basic” in today's schools are somewhat less than essential to the future of today's children, some readers misunderstood me to say that it is not important to learn anything at all! They took me to task for claiming that young people should be sent out into the world totally ignorant!

Of course, that was not my point. The point I was making was that the present school curriculum is hopelessly obsolete, and that we must re-examine thoroughly all the premises upon which it is based. What I was trying to get across was the idea that our school system is totally out of sync with the times. Most kids know it, and react by either tuning out of their schoolwork or doing it in a dull, perfunctory manner. I am hoping, and will continue to hope as long as I draw breath, that if I appeal to the common sense of the great majority of the citizenry, we will eventually realize that the magnificent emperor of current education is quite naked indeed, and that we must design a new, *real* set of clothes for His Excellency.

No one should be surprised that as times change, so

does the concept of what is really important for children to learn and for adults to know. During most of history, and in much of the world today, agricultural matters have been the center of attention, and it has been a matter of cultural and physical survival for virtually everyone to be well versed in farming, animal husbandry, food preservation, cooking, mechanical arts, and similar subjects. It is obvious that these “basics” have been essential to the many cultures based on them. But it is equally obvious that no one would suggest basing a modern United States curriculum on these studies!

In the recent centuries, the leaders of Western Culture in Europe (and in European colonies and offshoots all over the world, such as the United States) considered Classic Studies – Greek and Latin, to be precise – as the centerpins of advanced intellectual pursuits. The “basics” for the intellectual elite consisted almost entirely of the language, poetry, literature, historiography, philosophy, logic, and science of ancient Greece and Rome, as developed further throughout later centuries in the Latin language. (Few people realize, for example, that Newton's most famous work, in which he presented the basic laws of physics that were thought to govern all matter in the universe, was written in *Latin*, only two hundred years ago!) When bold, radical educators in the nineteenth century suggested that the Greek and Latin curriculum was obsolete, and that the “modern world” of the 1800s required children to know their native language, arithmetic, science, and modern history, the educational establishment recoiled in horror. The “radicals” were blasted for being “sophomoric”, not seeing the forest for the trees.

Entrenched schoolmen held fast to their sacred cows, and the leading private schools and universities stuck stubbornly to their quaint curricula.

It took World War I to sweep away virtually the entire structure of traditional Western culture. In one great upheaval, accompanied by the deaths of some twenty million young men and the devastation of a continent, all the old social structures, political ideas, governmental forms, and educational ideals went out the window, and the Western World was thrust into the twentieth century. In their place came the new society our parents and grandparents knew, with its shining new concept of “basics” suitable for a “modern” industrial world. It is this post-World-War I concept that has governed Western schools, including those in America, throughout this century. With small variations, mostly fine-tuning (such as the addition of new subjects here and there, and the creation of dramatic new pedagogical approaches to dress up old tired subjects), the fundamental notion of what is “basic” in schools has not changed much for about eighty years.

Unfortunately, when you examine what is taught in today's schools, you find it quite unsuitable for the times. I am sure that once you look at it closely and use your own judgment, you will agree that when I call current schools hopelessly obsolete, I am being generous.

The question remains: What, then, is to replace the old shopworn material? What should today's children learn to prepare themselves for the post-industrial society of the twenty-first century? This is too profound a question to answer

briefly, but I shall begin by suggesting that a critical factor in any modern school will be *flexibility*, allowing different children to deal with different sets of “basics”. For if there is one outstanding feature of the new age that is dawning upon us, it is the eradication of mass lockstep uniformity and its replacement by human variation and originality. We have been seeing this process gradually overtake the industrial economy, as it replaces hordes of human workers on the assembly line by computer-controlled robots designed by creative engineers. We are seeing this process rather suddenly burst forth on the political scene throughout the Communist world, where a political system rooted in conformity is exploding into a brilliant outburst of individuality. And we will see the same process sweep away the mind-numbing homogeneity of school curricula and replace it with a rainbow spectrum of alternative possibilities.

“Taking Courses” vs. “Learning”

Everyone has heard the aphorism, “To get the right answers, you have to ask the right questions.” Much energy has been expended on trying to discover how to formulate “right questions” in any field of endeavor. But people seldom give much thought to the obverse dictum: ask the wrong question, and you get the wrong answer. Often, it has more significance than the original.

Consider the following. No matter how many advances are made in understanding the human brain, no matter how much is revealed by modern research on learning, when people want to inquire into a child's intellectual progress, they invariably ask: “What courses have you taken?” In an era characterized by the quest for simple, unambiguous solutions, “courses” are thought to cure ignorance much as penicillin cures bacterial disease. They are the magic bullet, the universal panacea. In high school, a certain specified number of courses means a diploma. In college, the right mixture produces a degree. In the professions, course credits mean financial and career advancement. In business, they mark the road toward the Executive Suites. Do you want your car repaired

properly? The TV ad tells you to go to the dealer whose servicemen have course certificates on the wall. Courses are the rites of passage, everywhere. It hardly makes a difference what the contents are, or whether they are retained for any length of time. (When I was teaching Physics at the university level, I remember sitting around with colleagues on the faculty who would laughingly admit that *they* couldn't come close to passing the courses that were being taught to their students.)

To ask students what courses they have taken is to ask the *wrong question*. No conceivable reply aids understanding. If they refuse to answer, they are being uncooperative (or hopelessly anti-intellectual). If they rattle off a list, they are saying nothing meaningful, and they know it.

What is, after all, a “course”? The very name is the answer to the question. It is a *designated path* for the flow of a selected collection of information. The instructor, the person who determines the course, picks the material, the method of presentation, the connections, and the rate of progress. The instructor's path is not the only *path*, nor is there any reason to believe that it is the best of the infinite number of paths available. The “best” cannot even be said to exist at all. More important, there is no possible way that any two people's paths for organizing a subject could possibly be the same. No two minds work the same way.

A course, then, is a glimpse into the *instructor's* way of organizing, and thinking about, a subject. As such, it is a curio. For the most part, in the overwhelming majority of instances, it is of no more lasting value to the listeners than

a glimpse of a passing scene. At best, in some rare and lucky instances, it serves as a spark to provide insight, to trigger another person's own private train of thought. When courses are given to willing participants, it is a form of entertainment – like a movie, a play, a reading, a concert, a show. When courses are given to unwilling participants, it leaves behind scars of hostility, anger, and apathy.

The processes that have value in learning are the private ones that take place within the minds and souls of each student. To find out what is really going on in a child's mind, one has to ask personal questions; and to do that, one has to first take the trouble to forge a relationship that enables such questions to be answered. Parents who have close personal bonds with their children, peers who are friends, teachers who have shown real caring, these people can ask, "What is happening with you these days?" They will be graced with *real* answers – not with course lists, or with silence, or with anger, but with the flow of internal revelation that constitutes truth.

Ask the wrong questions – get the wrong answers.

Real Learning Starts with the Curiosity of the Student

One of the most important questions facing our society is how to restructure our schools so that they can meet the real needs of the new post-industrial era we are in. Recognizing the fatal defects of the current system of education is an essential starting point, but it is necessary to go further and discover the principles that underlie a successful alternative.

A column in the *Middlesex News*, written by Paul McNamara, and entitled “Extra-curriculars are not ‘extras’”, perhaps unwittingly served to point us in the direction we must take. The essence of McNamara's message was encapsulated in a personal reminiscence of his, where he wrote: “When I recall my high school and college educations, it's the extracurricular activities that stand out; it's those activities I can point to as having shaped by personality, my talents, my choice of career.”

What an extraordinary commentary! Here is a successful adult, who has displayed the talents and skills required of an editor of a distinguished daily paper, admitting to us that by far the most important part of his education in high school

and college had nothing to do with the prescribed classes!! One must admire him for his candor. In fact, I suspect that similar statements could be made by a huge number of adults today, if they were absolutely honest with themselves. A great number of us had our most important educational experiences not in standard classrooms, but in activities engaged in outside the regular curriculum, sometimes with professional teachers, other times with teachers who had only their expertise and life experience to share with us, and had no education courses or formal certifications. And the reason this is true is that the modern world – by contrast to the industrial world of the past two centuries – has a vast array of opportunities for productive, creative work available to people, an array far too broad and varied to be enclosed in any prescribed curriculum whatsoever. Paul McNamara in essence designed his own curriculum, choosing from a smorgasbord far more appealing to his tastes than the limited fare offered by the school.

To be sure, then, nowadays extra-curriculars are not ‘extras’ – but every young person knows they range far beyond the limited selection officially recognized as “extracurricular” by our schools, such as the band, the newspaper, the yearbook, the drama society, the basketball team, etc. Young people today engage in vigorous and rigorous pursuits outside school that are far more numerous than those sponsored by school officials. Indeed, for most children, the specific activities offered by the schools are as irrelevant as the so-called “basics” offered in the core curriculum.

The important point is to recognize that meaningful

learning which is truly useful for adult life, and which is pursued relentlessly by young people with enthusiasm, unlimited energy and concentration – such learning is available from a host of different quarters. The first and most crucial step in reorganizing our schools must be to change fundamentally our very concept of what education is about. We must realize that real learning begins with the initiative of the student, not with the imposition of external goals. And we must acknowledge that legitimate areas of interest can range far and wide, and ought not to be limited to a few subjects chosen by “experts”.

When all is said and done, the real aim of education must be no less than to produce adults who are filled with curiosity, eager to learn all their lives, confident that they can achieve their life goals, and able to enjoy working hard at getting what they really want. These are all the hallmarks of the self-motivated, self-driven individual, who is the embodiment of the American ideal. In this day and age, we can hope to realize this aim only if our schools embody a much greater range of free choices for children to pursue on their own.

Does this sound more expensive than current schools? Not to one who has seen such a school in action! True freedom of choice is the starting point for dramatic *decreases* in school costs, as has been demonstrated in practice. But that is a matter for another essay.

“Ethics” is a Course Taught by Life Experience

The proposition that morality should be taught in our public schools has been discussed vigorously on the pages of the *Middlesex News*, especially since the publication of Nick Sanchez's cogent column on the subject. Unfortunately, several complex issues have been confused in this debate.

First of all, it is important to understand that the public schools as currently constituted do indeed indoctrinate the students to a whole spectrum of values, embodied in a well defined pattern of behavior. The indoctrination is explicit, and the follow-through is thorough. In fact, much is being written on this subject nowadays, most of it critical.

For example, the schools teach the value of *obedience* to authority, unquestioning and absolute. They preach *conformity*, and back it up with an astounding battery of standard tests administered nationwide to children of all ages. They indelibly imprint the value of *competitiveness*, and the concomitant attitude that “nice guys finish last”. They deride and suppress the values of individuality, freedom, tolerance, and equality.

I can hear the chorus of objections from educators in the public school system, crying out that I have no idea what is really going on, etc. etc. But the readers of this column, children and adults, know that what I am saying is accurate and, if anything, understated. And one of the finest representatives of public education, John Gatto, New York Teacher of the Year for 1991, in a major public address recently had this to say: "The truth is that schools don't really teach anything except how to obey orders."

Of course, what Nick Sanchez and others are really advocating is the teaching of a different set of values, more to their liking. Dr. Sanchez mentions, as examples, the moral teachings of Jefferson and Moses Mendelssohn; other critics have other preferences. It is hard to criticize any of these choices, but the main point is that the very idea of "instructing" children in any set of values at school is off-base. People don't learn values through teaching in classrooms. At best, children view such teaching as boring and irrelevant; at worst, they treat it as obnoxious preaching.

Dr. Sanchez's favorite educational system, that of the Japanese, proves the point. He is quite right in saying that "lessons on morals are an integral part of Japanese education." One wonders, however, at their effectiveness. Certainly, the behavior of the Japanese during the first half of this century, through World War II, would not lead anyone to single them out as models of moral behavior. Nor am I quite so sure I would do so today. Incidentally, the other country long noted for the excellence of its schooling in philosophy and ethics, for over a century, was Germany. Enough said.

Which brings me to the third and main point: anthropologists and philosophers have for some time realized that the way ethical values are transmitted to children is through everyday action, on the part of adult role models *and on the part of the children*. This is why the family is the epicenter of moral education: children are exposed constantly to the behavior of their parents and siblings, and absorb through imitation and conceptualization the moral framework that underlies the actions of their “mentors”. And, in the home setting, children are constantly engaged in actions that they and their families evaluate in moral terms.

The only way the schools can become meaningful purveyors of ethical values is if they provide *students and adults with real-life experiences* that are bearers of moral import. Such experiences are notoriously absent from the current daily routines of public schools. They include, for example, students making *choices* that are significant for their lives, within the school setting; choices such as how to educate themselves to be productive adults. They include students exercising *judgment* in consequential matters, such as school rules and discipline. I could go on at length giving examples, but the point is simple, and needs little elaboration: to teach morality to students, they must have opportunities to choose between alternative courses of action that have different ethical weight, and they must be allowed to evaluate and discuss the outcomes of these choices.

Schools will become involved in the teaching of morals when they become communities of people who fully respect each others' right to make choices. This means that both

teachers and students will have to be empowered to an extent not presently envisioned by professional educators. Until such empowerment takes place, the values taught by schools will be in sharp conflict with those that most reformers would like to see taught to the youth of a democratic society.

The Goals of Education in a Free Society

Now that there is widespread acceptance of the need for serious educational reform, we have to examine carefully what our schools should set out to achieve, and how they might best go about doing so. This requires a fundamental review of the nature of education.

Perhaps the best place to start is at the heart of the matter – namely, how people learn. There are many complexities to the learning process, but one thing is abundantly clear: *everyone, at every age, learns best when they are grappling with real experiences that are meaningful to them.* No matter what the subject, a person must grapple with it directly in order to master it.

This basic principle is so well known, that it hardly deserves special mention. When you want to learn how to knit, you can look at videos, read books, take courses – but basically, you have to knit, and the more you want to use the objects you are knitting, the better the odds that you'll concentrate and do a good job. The same is true of any craft or skill. It's true of languages. You must use a foreign language

to learn it; and you must be really motivated to use it in the first place, otherwise you can spend years studying it without ever mastering it at all. (How many of us took years of high school Spanish, or French, and never felt really able to converse in the language or read it comfortably?)

The importance of real-life use of things that we want to learn is even more pronounced with complex learning. In fact, the more intricate the behavior we want to master, the more important it is that we use it constantly and practice it freely. For example, there is no way to learn social skills – how to get along with people in all walks of life – other than to be involved with a wide selection of people for long stretches of time. To be sure, we can be helped by counselors, psychologists, written manuals, etc., but when it comes right down to it, we have to interact, and interact a lot, in order to develop the ability to be an effective member of society. We have to be free to move in and out of relationships, to deal with people of all ages and levels of skill, to form groups and disband groups, to participate in decision processes, and so forth.

Which brings us to two of the most important things that we want our children to learn as they grow up to be effective citizens in our country. One is the ability to function in a free, democratic society as full participants in community affairs; a society where every citizen, regardless of age, color, religion, or belief, shows full respect for everyone else, treating all people as equals in all matters. The only way there is a shadow of a chance to have adults who function in this manner is to have children in a democratic, respectful envi-

ronment from the earliest age, practicing the uses of freedom from infancy to adulthood.

How important this is can be seen in the many countries that are now emerging from tyranny into freedom. Over and over we hear the complaint that the average citizens of these countries have no idea how to behave in a free society, how to set up and function with democratic institutions, how to extend the mutual respect that one needs in a pluralistic society. In our country too, we are daily aware of the difficulties people encounter dealing respectfully with one another, and without violence or high-handedness.

It would therefore seem essential that our schools function as free, democratic societies, in which the children are full participants in real decisions on a day-to-day basis, and participate in working out the rules, the operation, and the judicial processes of their community.

The second key skill that our children must garner in school is the ability to think creatively and meet new challenges as they come up. Now thinking, like everything else, cannot be *taught*. It is a native talent, inherent in the very structure of the brain, and needs practice and exercise in order to develop. The brain *always* thinks; what one needs is to give it the opportunity to develop its full capability for problem-solving, much as the muscles of the body develop through use in action.

A healthy brain needs to be given the maximum possible freedom to follow its lines of thought. The fewer the constraints imposed by other people, the more likely a mind will develop fully, uniquely, and creatively. And if there is any-

thing we need in the coming century, it is creativity, as opposed to robot-like obedience to rules.

Attempts by schools to teach children how to think are a contradiction in terms. Any time you create a curriculum, of any sort whatsoever, you are imposing a pre-digested mode of thought on a fresh brain, and decreasing its ability to function independently. The schools this country needs today must be institutions which abandon any and all attempts to limit the free pursuit of knowledge that every child, and every adult, engages in naturally, without any outside goading.

The schools our country needs desperately, to ensure a continuing society of creative, entrepreneurial, free citizens, are schools that are run democratically, and allow the students freedom to pursue whatever their interests may be. A few models of such schools exist throughout the world today, and they are harbingers of a new world of education.

We Need Less Homogenization, and Much More Variation, in our Schools

Recently, a newspaper columnist bemoaned the average American adult's lack of scientific knowledge, presumably brought about by the abysmal state of education in this country. As so often happens, the column ended with the suggestion that the Japanese might teach us a thing or two about how to remedy the situation.

I don't think I'm the only one who is tired of hearing how much we have to learn from the Japanese in the field of education. In the first place, I have never seen a serious study comparing the effective knowledge of the average Japanese adult and the average American adult. I have no idea what such a study would reveal, nor does anyone else; that fact alone should give people pause before urging us to Japan-ize our schools. Secondly, such comparisons always leave out the essential point: namely, that Japanese education has widely different aims than American education. The ideal Japanese adult, as conceived by their society, bears little resemblance to the ideal American adult, as envisioned by most people here. Before we copy someone else's schools, we had better be

darned sure we want to copy their overall culture, and I doubt very much whether most Americans would be comfortable living as the Japanese do. Finally, it is worth noting that within Japan there is growing criticism of their schools, and an ever-increasing number of Japanese educators are spending a lot of time and effort studying American schools and trying to model Japan's schools on ours!

But my main point goes deeper. Why should anyone think it is important for the average American adult to know how electric appliances work? Where does this form of complaining end? Should every adult be knowledgeable in economics and finance, so that everyone can be conversant in monetary theory, debt financing, banking and money, public and private capital formation, etc? Should each and every one of us understand superconductor theory, electronics, computer construction and maintenance? Is it important for every adult to be adept in organic chemistry, biochemistry, the physical chemistry of radioactive substances, petrochemical theory? Do we all need to be able to find our way through the maze of Middle Eastern affairs, Baltic politics, Eurasian nationalities, African tribal history? Each of these subjects, and literally hundreds more, play key roles in the evolution of modern society, in this country and throughout the world. For any one person to have even a rudimentary acquaintance with all of them would exceed the intellectual capacities of an Aristotle, a Newton, or any of the great proverbial "Renaissance Men" (or women).

People who advocate the thesis that in a society such as ours, especially a democracy, every adult should have a work-

ing knowledge of a large variety of subjects, miss the whole point of how a great modern democratic culture works. At the center of it all is our system of information storage, retrieval, and distribution, which makes it possible for us to amass an enormous – indeed, virtually infinite – amount of knowledge, creative thought, and human experience, and to use it effectively. The first and key factor in this process is the work product of each individual in the culture, toiling in his or her own special magical garden of the soul. Each of us, without exception, has our own unique contribution to make to the development of human culture. What modern information systems do is make it possible for us to specialize and be creative in our own particular domain of interests, but still to be able to call upon the whole of human knowledge whenever we need it. The culture advances through the accumulation of staggering numbers of individual original creations, available to everyone else in society through the information network. In fact, the more energy each of us as individuals devote to developing our own unique talents, the greater the likelihood that the world will benefit through our creative energies. The last thing on earth that we want to do is stand in the way of individual specialization, or limit personal creativity by subjecting it to some uniform general homogenization process.

Every person I have ever met has some special interest, something he or she is really good at. It is that special spark in each human being that makes them interesting, and makes us want to seek out their wisdom and counsel. I don't want to live in a society where people are more alike than dif-

ferent, where adults ruin the prime years of their children's lives by trying – always unsuccessfully, even in Japan! – to ram some basic glob of common knowledge into each and every one of them, and create docile, uniform adults all able, for instance, to know how electric appliances work. Surround me instead, if you please, with great artists, whether or not they can run a lathe; with inventive machinists, regardless of whether they know chemistry; with brilliant scientists, even those who don't read poetry; with productive farmers, be they mathematicians or not. Let's make it our goal to produce a nation of eccentric entrepreneurs of the mind and spirit, measurable not by some standard tests of uniform knowledge, but by the degree to which each of us is able to make some small original contribution to the advancement of human culture.

What Do We Want to Achieve In Our Schools?

All the hullabaloo about education these days has led more and more people to ask what is perhaps the most important question of all: how do you measure a good education? What are the basic aims we are trying to achieve in our schools, and how do we know whether we have actually attained them? Recently, a group of local school superintendents tried to come up with some answers to this question. Not surprisingly, their answers did not deviate much from the accepted wisdom, which centers on an array of factors such as test results, classroom size, expenditures, home environment, and so forth.

What this group seems not to have done, but what every community will be forced to confront sooner or later, is come to grips with the basic question of educational goals. I would like to deal with a few of the more puzzling aspects presented when asking that fundamental question.

No one will quarrel with the assertion that the end product of a child's education should be a person who can function as an effective adult in society. The difficulty begins

when we try to convert this into some sort of reality.

Here's an example of how hard it is to make sense of things. Suppose I could wave a magic wand and bring into existence a school system that automatically produced first class geniuses. Would anyone want to send their children to it? How many of us would want our child to be a Van Gogh, one of the transcendently great painters, who was so tortured that he ended his days committing suicide in an insane-asylum? What parent would want a Mozart for an offspring, who composed pieces of such lyric beauty that the world has been transported by his music for over two hundred years, but who was such a social misfit that he hardly knew a moment of peace or financial well-being? Would you or I want a son like Ignaz Semmelweis, the doctor who discovered antiseptis and whose work has saved the lives of millions of people, but who was so depressed by the criticism and ridicule he received from his colleagues that he too ultimately took his own life at an early age? Would we want as a son a Socrates, one of the founders of Western philosophical thought, tried and condemned to death by his countrymen? Or a Janos Korczak, the saintly educational innovator who voluntarily joined the Jewish children he taught as they were killed in Nazi death camps?

These questions are neither loaded, nor unusual. It is the norm, not the exception, for truly creative people to be excoriated by those of more conventional outlook who surround them. Geniuses almost invariably lead difficult lives, beset with envy, hostility, opposition, indifference, and contempt. Is this the kind of life we want for our children? Or do

we prefer them to be drab, colorless, conventional, conforming, and thus less subject to social ostracism? These are the kinds of questions we must have answers for, before we go off on a wild spree of building new types of schools that produce creative geniuses – assuming we knew how to build them!

Or consider the following problem. Much energy is now being expended, especially by private industry, to build schools that train children to work effectively in state-of-the-art environments. The argument is made that in order to produce adults who can function in the ultra-modern world we live in, we have to surround children with devices that reflect the best in current technology, and demand that they master these devices before leaving school.

This concept has so much appeal, that many companies large and small, as well as many governmental agencies, are pouring significant sums of money into model schools that embody it. The trouble with this approach is that even if you accept the premise that one should concentrate our schools on what is essentially vocational training, you sooner or later have to face the fact that there is no way to do this! In fact, the goal is self-contradictory.

The whole point of “state-of-the-art” is that it is constantly changing; otherwise, the phrase would have no significance. If technology doesn't change rapidly, there is hardly any point in stressing the latest developments. Moreover, the rate of change is increasing dramatically nowadays. Things that were state of the art ten – even five – years ago are now obsolete. This is true not only in the world of computers (what company would outfit itself with computers built in

1986?) but virtually across the board, in areas of manufacture – metallurgy, plastics, waste disposal, you name it – and in areas of services.

A school that trained children in an environment that was totally modern on the day it was built becomes obsolete before the freshman class become seniors. To revamp such a school from end to end every year would be costly, and absurd.

I have no answer to these, and similar problems, that go to the core of what education is about. Indeed, I suspect there is no single answer. Different people will prefer different goals for their children, and different children will want different goals for themselves. We will not only have to work hard at defining what our goals really are, we will also have to be tolerant and flexible enough to accommodate a wide variety of different educational environments that will be developed to further a broad range of goals.

Tests: What They Are, How They Work

Testing has come to the fore as one of the key issues in education as this country looks toward the 21st century. Every day we hear more calls for standardized tests, administered on a national scale, to measure the efficacy of our educational system in producing effective adults in a global, future-oriented economy.

I know of few issues that are more difficult than this one. It seems to polarize people almost instantaneously into two camps: those who see testing as a universal solution to the problem of “knowing where we stand”, and those who are adamantly opposed to testing as a meaningful indicator. The truth seems to be somewhat more difficult to arrive at, as usual.

I shall attempt to unravel some of the more significant strands in this debate, and lay bare the assumptions underlying various positions. I think this exercise will help readers find their ways through this maze, and make up their own minds about the unresolved problems.

The first question that must be addressed is what we

want to find out with our tests, and why. Suppose, for example, that we are planning universal testing for all subsistence-culture Inuits. We might argue that we would like to know if every male knows how to carry out a successful seal hunt, on the assumption that such knowledge is essential to the survival of the individual and the community. I am not arguing for or against such a test, just pointing out the nature of the problem.

In discussing the current educational system in this country, one soon discovers that this question is much harder, and much less amenable to analysis, than it first would appear. Consider, for example, the process of reading, which is usually picked out as the most important skill needed by every person today. It turns out that reading ability is highly linked to content, and to the motivation of the reader. The notion that there is one kind of abstract “reading ability” is just plain nonsense.

Everyone knows this, though educators almost universally fail to recognize it. For example, a person deeply engaged in auto mechanics might be extremely facile in understanding intricate texts about motors, transmissions, clutches, catalytic converters, etc., especially when that person is in the midst of a major repair job that is challenging. That same person, if sat down at a desk in a testing environment and told to read a piece of fiction and analyze it, may tune out altogether, and appear to be almost illiterate. *By the same token, a successful English Professor could strike out altogether if asked to read and analyze a text on automotive repair.* Indeed, the Professor and the auto mechanic could both do

miserably if faced with the need to perform at a desk in a manner wholly unrelated to their personal interests at the time of the examination.

Furthermore, there are a great many significant areas of competence where literacy of any form is not necessarily important. A person can be an excellent athlete, artist, musician, craftsman, woodsman, farmer, or any number of other professions, without ever reading a word of text. This has been true since the dawn of history, and is true today as well. Testing such people for reading skills is as relevant to their effectiveness in society as testing a fighter pilot for his/her ability to sing a Bach aria, or train a racehorse.

I submit that there is not a single clearly defined area for which a good argument can be made for universal testing in this country. The whole point of a post-industrial, modern society is that it welcomes diversity, and thrives on an endless multiplicity of interests, skills, and creative drives. Not only is there no need to reduce everybody to certain common denominators, but there is every reason to avoid this assiduously. Standardization of human endeavor in a post-modern society is *counter-productive* to the kind of creative ferment such a society needs to keep advancing. The Japanese, whose highly rigid system of education so many Americans seem to yearn for, are themselves coming to realize this simple truth, and are doing their best to revamp their schools from the bottom up. The Russians, who have not yet really figured this out, are watching themselves fall farther and farther behind the Western world as their population remains bound by an educational straitjacket.

If someone can make a convincing argument for any specific area of expertise as being truly required by every single adult in this country in order to function effectively, then there is room for consideration of a national test in that area. To date, no one has come close to doing so. As a result, all the specific tests being talked about these days are, in fact, applicable to only a limited cultural constituency, and would be a major step backwards in educational practice if we were foolish enough to adopt them.

There is, however, another more profound difficulty with the whole procedure of testing. To see this, it is necessary to understand that at the heart of the concept of a test is the notion of *measurability*. We administer tests to measure something, and the measure gives us a way of comparing different people to each other, as well as comparing each person to some absolute standard. Unless the subject-matter underlying the test is inherently measurable, there is no way to create a test for its mastery.

This problem is most easily illustrated by considering something like “beauty” as an item to be tested for. Everyone knows that beauty is a subjective aesthetic judgment that is both personal and cultural in context. One person's paragon is another person's nightmare. When the Impressionists started painting in Paris over a hundred years ago, most European art-lovers thought their work was ugly beyond words. As these artists starved, other realist painters made their fortunes. Today, the same impressionist paintings sell for many millions of dollars each, and their realistic contemporaries are rarely shown. No one in their right mind would

even dream of setting up a numerical measure for beauty!

Now, the kinds of things that can be measured are simple, standardized mechanized activities, usually associated with machines or robots. For example, one can measure the ability to drive a car, or to fly a plane, or to turn a lathe, or to weave or knit. On the other hand, even with these activities, it is impossible to create a measure of that part of them that involves judgment. Thus, we cannot test for the reflexes and skills needed to make an effective race-car driver, or be a stunt flyer, or to fashion imaginative wood sculptures, or to design a beautiful sweater.

When we get into intellectual areas, our ability to test effectively diminishes rapidly, and becomes almost meaningless. Thus, we can create a measure for spelling ability, but not for the ability to write well – something even sophisticated critics disagree on all the time. We can create a measure for correct grammar, but not for good style. We can create a measure for accuracy in addition, subtraction, multiplication, and division, but not for the ability to solve original problems of the type that face mathematicians. In fact, as these and other similar examples show, we can create measures for any skills that can be programmed on a computer – and that, therefore, are no longer really important to carry around in your head!!

This has enormous implications for schools. After all, the core purpose of education is to prepare children to be effective adults in the modern world – which means, more than anything, to be people who can think for themselves, who can solve problems creatively, who can invent new sys-

tems. What we need more than anything is a citizenry of independent, responsible, entrepreneurial people, capable of taking charge of their lives, able to figure out how to integrate into their surroundings. All this involves *imagination* and *wisdom*, two of the most unmeasurable characteristics of the human race.

You have probably heard some people claim that there are indeed tests for creativity. I urge any reader to examine these tests, and apply your own common sense to them. What they basically do is pose an open-ended problem, and ask the student to come up with as many different possible solutions to it as he/she can in a given time period. Any relation between these hokey, unimaginative test problems and the kinds of challenges that face people in the real world is remote, at best.

Which brings me to the time factor. Even in the few limited cases where tests are relevant, the time factor wholly negates their value. There is no way to force creativity to happen in a given time span. There is no way to make a great poem appear in an hour, or a new political insight come into being in a 45-minute period. Thought needs time to mature, time to develop; nothing, absolutely nothing, is known about how the process of original thinking unfolds with time. There are theories, there are guesses, but there is no knowledge. Indeed, if we knew the secret to making creative thought happen on demand, it would by definition no longer be creative, but just another routine procedure. Testing for originality in a fixed time span is an absolute contradiction in terms.

There is almost no use to testing in a meaningful educational setting. The average citizen understands this quite well. That is why we hardly ever see or use tests throughout our adult lives, even though we spend decade after decade in being productive citizens. The sooner educators realize this fact, the sooner our schools will be suitable places in which our children can grow up and be prepared for their future.

Standard Tests Destroy the Educational System

Each time they are administered, the statewide standardized tests given to fourth grade, eighth grade, and twelfth grade students are mulled over and discussed in the Press and in various school administrative offices. One town wonders why its students did so poorly compared to the average, another town prides itself on its good results, yet another town takes pride in being above average but worries about a drop from last year, and so forth. Communities rate themselves and their schools according to these absolute and comparative results, and everyone seems to take it for granted that these relatively new tests are a wonderful measure of something very important about the education of our children.

Actually, it is impossible to exaggerate the devastatingly negative effect these tests are having on our schools. For starters, let's ask ourselves: what are these tests? What do they consist of? The answer is: they are strings of questions that attempt to measure the retention by students of certain facts and particular skills. Once we examine closely the assumptions on which the tests are based, we can begin to gain

insight into their insidious character.

First of all, who makes up the tests? The writers are themselves members of the educational establishment, who have been asked to judge exactly what is and what is not important for everyone at a certain grade level to know. Who bestowed such Divine knowledge on this group of people? Who can claim to have such wisdom as to know such matters with surety – with enough surety to make this knowledge a benchmark for thousands of children? What man or woman can claim to have the ability to sort out of the infinite reservoir of human knowledge those few particular tidbits that are essential for all?

If such a system were to be established anywhere else but in the schools, there would be such a public outcry that the proponents would hide in shame. Isn't the universal adherence to a given limited set of facts and actions the essence of dogmatism, of autocracy, of psychological repression? Have we not always despised countries where such demands are made? Do we not revel in our variety, our freedom from mental constraints? How, then, can we justify investing in a group of teachers the power to judge all our children according to the measures these teachers have decided to set up as absolute and proper?

And what about the very idea of uniform standards? Does it really make sense to want every ten year old, or fourteen year old, or eighteen year old to master the same material? *The worst result I can imagine would be that every student in the State got a perfect score!* What a terrifying prospect! Do we really want to live in such a Brave New World? And if it's

good for those ages, why stop there? Why not keep up the good work, and test people every four years until their dotage, to make sure they haven't deviated from the best norms our testers can devise?

Do people have any idea what these tests are doing to the schools of our various towns and cities? As time goes on, and performance on the tests becomes ever more important as a measure of schools' success, more and more energy in being channeled into making sure that the children do well on the tests. Test performance becomes paramount, and ever larger amounts of energy and time are poured into this sterile exercise. I am not speculating in this matter. The same thing has happened everywhere that standardized tests have been introduced. Over fifty years ago, for example, it became clear that subjecting all New York high school students to statewide Regents Exams in every subject leveled the instruction throughout the state to a uniform mediocrity that has never been transcended. Much the same has happened with SAT's, which have become an end in themselves for college admission, and overshadow any potentially productive learning a student might otherwise have engaged in during the latter high school years.

It is not too late to abandon these insidious tests. On second thought, perhaps it is too late, for the time being; perhaps it will take many more years of this madness before the central authorities realize that they are stifling the very educational system they think they want to improve. But one thing we can do to fight this madness on a local level is to *ignore the test results* in any and every discussion of our local

schools. If local communities decide, each on their own, to concentrate on what *they* think is important and to ignore what anyone else tells them is important, there is still hope that we can avoid the dulling uniformity that these tests seek to impose.

Tests on “Basics” Are Full of Absurdities

Some time ago there was a big flap over how poorly, or how well, high school students had done on a so-called “quiz on basics” on history and geography. If you didn't have a sense of humor, you missed the best part of the story.

To begin with, I always am amazed at what kind of people have the sheer nerve to put together twenty short-answer questions and label them “basic.” The last time I looked, only religious organizations and political sects made such lists; but at least Moses invoked God's authority for his short list of ten commandments. Even the most self-confident educators I have ever met never claimed divine origins for their lists of basics.

I mean, where could anyone possibly get the idea that the identity of the Vice President is “basic?” Virtually every Vice President since 1789 has complained about the uselessness of the post. Benjamin Franklin called the Vice President “His Superfluous Excellency.” Woodrow Wilson once wrote, “His position is one of anomalous insignificance”; and Daniel Webster, offered the Vice Presidential nomination in

the 1848 election, rejected it with the comment, "I do not propose to be buried until I am really dead." I, for one, would have preferred a more full-bodied question, something like: "Who is the most useless high official in the U.S. government, with the least to do, and the fewest powers?" I might have considered adding a hint: "HINT: His main job is to wait for someone else to die or be disabled." Now, there's a good question for you; nothing namby-pamby about it. And any students who couldn't answer would be duly punished by making them serve as Vice President of any group, organization, institution or corporation of their choice for one day.

Another of my favorite questions on the "Basics Quiz" was the following: "When it is noon in Boston, what time is it in San Francisco?" Now we're getting down to really important stuff. I mean, I can see a person getting along quite well if he doesn't know what time it is in Albuquerque when it's noon in Dubuque (which reminds me: high on my list of basic questions would be, "Where is Dubuque and what is its compass orientation relative to Albuquerque?") But how, oh how, can a person reasonably be expected to be a productive, informed citizen in the nuclear age if he is stuck in Boston at noon on a snowy day and can't tell the time in San Francisco, not to mention Los Angeles or Juneau?

When all is said and done, time zones are too important to leave to some high school geography lesson. Maybe they should be included in automobile license-renewal exams, or as a requirement for voter registration. Every person must, as a matter of survival, know that, in the simple words of a wide-

ly used atlas, “there are two different calendar days on the Earth's surface. West of the international date line, it is one day later than the day east of this line. Since the day also changes with the passing of midnight, care must be used to keep track of the calendar day when the time zone difference is greater than the time to midnight. So, for example, when it is 11 a.m. on Wednesday in Manila, it is 9 p.m. on Tuesday in Chicago.” Is that clear?

Ah, basics. Every town should have its Basics for a Useful and Long Life Committee (BULL Committee, for short). Perhaps we can get one going on a county level too – that could breathe new life into County Government, give it a purpose. The possibilities boggle the mind.

The Curse of the SAT's

The problems every community in the country is having with its schools nowadays have nothing to do with money, or class size, or curriculum or discipline. Rather, they stem from a universal lack of focus, a loss of clarity concerning the essence of schooling – namely, what do we as a nation (and as parents) want our schools to achieve with the youngsters entrusted to them?

The answer, or answers, to this question are a matter of highest national priority, and must be determined by us, the citizens, as it is our future that is at stake. Just as in other matters of overarching national policy, so too in this matter, it is the voice of the people that counts, and we can no more entrust those decisions to so-called “experts” in education than we can entrust our strategic defense policies, or environmental policies, or our nuclear policies, or matters of war and peace to “experts” in those fields. We may seek the advice of scholars, but the decisions are for us as common citizens to make, for it is in the collective wisdom of the people as a whole that the ultimate strength of our democratic republic resides.

What this means in everyday terms is simple: we *must* exercise our own good sense in setting goals for our schools. We must examine with a clear eye what the schools are doing now, and *use our own judgment*, based on our life experience, to decide whether we are satisfied with what we see, or wish things to change.

As an example of an area that could use some sensible scrutiny, consider the Scholastic Aptitude Tests, the SAT's, a set of examinations taken (usually several times) by virtually every high school student in the country, in the last three years of high school (at least), and used by almost everyone to measure school performance and student potential for the future. A child's SAT scores mark him/her for success or failure, for college admission or rejection; the average SAT scores of a school population mark the school as a good one or bad one, as a worthy recipient of support or as a candidate for reform.

I wonder how many people have given much thought to the SAT's, and what they stand for. Their pretentious title tells you what they purport to *measure with a number*: "scholastic aptitude." That means these tests are supposed to give a numerical figure that represents the student's *ability to learn*, which is the most fundamental human trait, possessed in some measure by everyone, and absolutely essential for adult survival.

Let's glance at the tests, and see what they are about. Basically they come in two parts: verbal aptitude and mathematical aptitude. Immediately, we are stopped short. How do these two determine scholastic aptitude? Is that all there is to

learning – math and verbal aptitude? Are these even the most important components of scholastic aptitude? What happened to the right side of the brain – to art, to intuition, to creative leaps of the imagination? What happened to the other left-side aptitudes – technical, and/or interpersonal, to name but two? In fact, the SAT's pick out two areas to concentrate on, quite arbitrarily deciding that performance in these two areas will determine how society will view a youngster's potential to learn!

But that is not nearly the whole story. Even within their chosen domains, the tests are a farce. To begin with, they are strictly timed, and if any one thing is known about the way the human brain functions, it is this: time and speed have nothing at all to do with effective thinking or learning. Nothing at all. Period. The very fact that SAT's are strictly timed vitiates their value *a priori*.

Their content, however, does nothing to redeem them. Thus, the math SAT's are full of algebra (mostly linear equations) and symbolic logic. It is fashionable to say that these subject are not really content oriented, but rather teach people how to reason. What nonsense! Thousands of years of brilliant mathematical logical thinking took place in ancient Egypt, China, Mexico and Greece (and elsewhere!) without the slightest recourse to either algebraic or symbolic formulas. Euclid would have scored next to nothing on the math SAT's. So would Archimedes and Aristotle. Most colleges wouldn't even consider their applications on the basis of poor SAT scores!

The English part is even stranger. One emphasis is

vocabulary, where the testers find out whether the students know words such as pusillanimous, tautological, malefactor, hortative, or eleemosynary. Another part of the exam pulls a passage out of context and asks all kinds of dumb questions about it. I wish I had space to give you a sample, but you can see for yourself in any SAT crambook. Now, I submit that a great many people are quite articulate, quite able to express themselves and to understand what is being said to them – in other words, quite successful in everyday use of English communication skills – without having an inkling of what half the SAT vocabulary words mean, and without being skilled at decoding hunks of text plucked out of their place. These just don't mean a darn thing in the real world.

Oh yes – and then there's the cramming. Everyone knows that SAT's can be crammed for, and that proper preparation greatly improves performance. On the other hand, everyone also knows that the ability to learn is *not* something you can cram. The very existence of cramming gives the lie to the SAT myth, but the myth lives on, and the naked Emperor stays on parade to a host of admirers who sing his tailor's praises!

Look, you don't have to take my word for any of this. If you are reading this essay, you are probably smart enough to do OK in life, and to make your own sensible judgments. So, *go out and get hold of an SAT preparation book*. Read it. Tell yourself honestly how much of the stuff in that book (timed properly, don't forget!) is really essential, in your opinion, to being functional in the modern world. My guess is that the vast majority of you who take the trouble to do this will agree

with me that almost none of it is in the least bit relevant.

P.S. to School Committee Members: You *owe* it to yourselves and to the people who elected you to go to the trouble of doing this exercise I have just suggested. You owe it to the public trust to make your own independent judgments on this question. My guess is an awful lot of you are going to conclude that SAT's are not a worthwhile feature for our educational system today. And that will be a very important conclusion indeed.

Next Summer, Enjoy Your Children – And Let Them Enjoy Themselves!

Summer always gives us an opportunity to confront the awful mess Modern Man has made out of the most basic natural activity of the species – childrearing. Daily newspapers, magazines, TV programs, all carry constant reminders of how badly we have managed our affairs in this critical area.

First, a few words about basics. It is undeniable that adults of every species have been endowed by nature with all the inherent instincts, reflexes, habits, and intuitions necessary to bring about the successful raising of newly born members of the species. Otherwise, no species would survive, since the most helpless and vulnerable phase of any animal's existence is the initial one, after birth. Furthermore, it is also beyond dispute that every species is endowed with a fundamental drive to want children. And finally, survival dictates that the young of every species have built in abilities to develop and grow into successful adults. These three basic facts of life are universal, and are essential to the continuance of each and every species, throughout the evolutionary scale.

What does this have to do with summer, you may ask.

Well, the first thing you notice in, say, the *Middlesex News*, is a bunch of columns with the following theme: “Gads, it’s summer again! We’re stuck with our kids on our hands! No school to occupy them all day! What do we do? How do we handle them, entertain them, keep them out of trouble, get them off our hands?” And the writers, year in and year out, provide lists of formulas for easing the panic in parents’ breasts over the thought of actually having to deal with their children on a daily basis. Now, isn’t this strange? Didn’t we want to have those kids in the first place? Weren’t we endowed with the same innate abilities to handle them when they appeared on the scene? What went wrong?

And then there is the second category of advice we get from a horde of well-meaning columnists, telling us how to make sure that the free time our children have away from school is properly utilized, so that they will at all times be learning something useful – for example, social studies, or mathematical concepts, or history, or geography. As much of the day as possible is to be spent instilling educational concepts approved and recommended by professionals. Heaven forbid that kids spend their vacation actually playing and enjoying themselves in their own way! They would be “wasting time.” Doesn’t anyone believe any longer that nature bestowed on our kids the innate desire to learn about their surroundings, to grow up and be successful adults? Does everyone really think that the human species would be worse off than it already is if we held back a bit and let kids figure things out for themselves?

It may be useful to take a page out of the anthropolo-

gist's notebook, and see what we can learn from other cultures about dealing with children. Most indigenous societies the world over require their adults to possess extraordinarily finely honed skills, in order to live harmoniously within their natural environment. Indeed, the necessary skills far exceed those that most Western people possess today, in our technologized state of being, where we rely on inanimate objects to replace human endeavor. Thus, so-called "primitive" peoples must develop great expertise in areas such as tracking, hunting, endurance, long-distance running, patience, emotional control, suppression of all appetites, and especially memorizing the knowledge and wisdom of their culture. The pressure on indigenous societies to have their children grow up to master these skills far exceeds the pressure on our society to have our children learn math or social studies. Native children who don't learn their "basics" will almost certainly die, while modern children at worst will end up with poor jobs or as wards of society.

Now, given this pressure in native societies, how do they treat their children? Again, the answer is simple, and virtually universal. To prepare their children for the rigors of life, these societies give them endless love, affection, physical caressing, and, most important, freedom to play almost endlessly and to observe freely the goings-on in their village. The assumption is that the children will want more than anything to become whole people, to contribute to their societies as adults; and the freedom given to the children is a recognition of the fact that no person knows better than Nature herself how each child can best achieve adulthood. Nature is the

teacher, and the natural inclinations and drives and instincts of the children are trusted to lead them into the most productive paths for their adult lives.

We have so lost touch with our innate human essence that we are afraid of being with our children, afraid of trusting their ability to find their way in life, afraid of using our own common sense instead of relying on educational “experts” – afraid of *being*.

Is the situation hopeless? I don't know. But at least we can try. And each of us can start this very next summer, by doing things with our children that we enjoy, by letting our children have the freedom to do the things they enjoy, and by surprising ourselves into having such a pleasant summer with our offspring that we too, like they, will be miserably unhappy when September rolls around and they have to return to school once again!

Should School-Age Children Hold Jobs?

It appears that educators have suddenly discovered that a great many teenagers are employed while still enrolled in school. This fact has become a matter of controversy as various communities struggle to improve the performance of their children on standardized achievement tests, and search for reasons to explain why test results may be suffering.

So here we are, faced with a hue and cry directed at children and parents: "Study and work don't mix!" Since we already have been told that study doesn't mix with TV, or with comic books, or with parties, or with poor attendance at school, or with too much sports, we find the life of the ideal teenager, according to many distinguished educators, to be a rather austere succession of classes, homework, and sleep, punctuated with balanced meals, and little else for distraction, except for occasional vacations.

The argument about teenage work misses the point, because it has not been properly focussed. The fact is, there are two widely differing motives that drive most kids to seek work, and the effect of the work on their development

depends critically on which motive is operative. The first major motive is to participate actively in the family's struggle for financial stability. Many teenagers have to find jobs for the simple reason that they must contribute to the family exchequer – either directly, by depositing their paychecks in the family bank account, or indirectly, by taking care of their own needs for food, clothing, and other essentials, thus relieving the parents of that burden.

In such cases, work is – and always has been – a great builder of character, teaching children the importance of the family, of cooperation, of mutual caring, and of personal responsibility. In addition, good work habits become inculcated at an early age. Because the job is a serious necessity for the youngster in question, he or she must learn to perform well, to use judgment, to be dependable and to contribute positively to the success of an enterprise. Teenagers who work because of economic necessity also learn quickly how to manage their money, how to set priorities, how to distinguish between important and unimportant expenditures. All of this is clearly of great value to a child's development into a responsible adult in the community – surely education's most important goal.

Contrast this situation with that of teenage work engaged in for the other major reason, the one that predominates in affluent circles – namely, to earn pocket money in order to enter into the consumer society at an early age. These children exemplify the worst aspects of our economy, where people's endless lust for novelty is exceeded only by their eternal dissatisfaction with what they already have.

Advertising, peer pressure, and the absence of deep internal anchors all contribute to this sorry state of affairs. No amount of money is ever enough, no new excitement ever lasts, nothing brings happiness. Life becomes a pitiful race to gain new thrills as every old one fades, ever more rapidly.

We recognize this state of affairs and deplore it, perhaps most consciously during gift-giving holiday seasons. But somehow the vast majority of us continue to perpetuate it, not knowing how to stop. And one thing is sure: when teenagers are encouraged to become part of this pattern, we are guaranteeing that they will be swept up into this consumerism for life.

It is this aspect of teenage employment that is properly worrisome, not because of its effect on schoolwork, but because of its effect on character. Kids with hundreds of dollars to spend week in, week out, on whatever they fancy, with no relation to real economic need, are kids looking for thrills – thrills found in lavish spending at stores, restaurants, and in illicit activities.

Nor does this kind of work promote good habits for adult life. Typically, kids looking for pocket money take a job for a while, accumulate enough for their immediate needs, and then move on. Their employment consists of a succession of sporadic job experiences, devoid of commitment and without the need to perform well. If they are fired, so be it; there's always another temporary job somewhere else.

As for the effect on school work: Kids who are mature enough to contribute to their family's welfare are almost always responsible enough to take their education seriously.

Kids who are looking for ways to spend money are rarely thinking about long term goals, in life or in school.

In any event, forbidding kids from working is not the answer to anything. In cases where work is a real necessity, banning it would be destructive to the child's development and to the family's welfare. In cases where work is an avenue to consumerism, banning it is striking at the symptoms rather than the underlying cause.

PART II

The Organization and Operation of Schools

Democracy Must be Experienced to be Learned

There is much talk these days about the importance of teaching democratic values in our public schools. It appears that newspaper columnists, teachers' unions, public organizations, and other civic-minded persons have suddenly come to realize that our youth is growing up ignorant of, and uncommitted to, the great principles upon which our nation is based.

Although I fully agree that a problem exists, I am afraid that the proposed cure – more classes on democracy – is no better than the disease. Why is it that people persist in thinking that the solution to real-life problems is talking about them? Does anyone really believe that subjecting children to yet another course will achieve really meaningful goals? We can't even get our kids to read or write or do arithmetic properly, despite endless hours of classroom effort. Are we going to make them into defenders of freedom by adjusting the curriculum once more?

The simple fact is that children are not committed to democratic principles, or political freedom, or the bill of rights, because they themselves do not experience any of

these lofty matters in their everyday lives, and in particular, in their schools. Children do not have rights in school, they do not participate in meaningful decision-making at school (even where the decisions directly affect their own lives), nor do they have the freedom of self-determination in school. In fact, the schools are models of autocracy – sometimes benevolent, sometimes cruel, but always in direct conflict with the principles on which our country is based.

The way to ensure that people of any age will be deeply committed to the American Way is to make them full participants in it. Make our schools democratic, give our children freedom of choice and the basic rights of citizenship in the schools, and they will have no problem understanding what this country is about.

Democratize the Selection of Teachers

It's high time that students were given a say in choosing their teachers. I know of no other area in our lives in this country, except for prisons, where the client population being served and benefited has no say at all about the identities of the people providing the service.

The main argument given against involving children in the choice of their teachers is that teachers are experts, and because of the nature of their work are not subject to review by students. Children don't know enough, the argument goes, to make sensible judgments about the calibre or effectiveness of instruction. Only knowledgeable people should make these choices – administrators such as school superintendents, who are experts in the field of education.

Unfortunately, there are so many holes in this argument that it's more like a sieve than a coherent stand. To begin with, the argument is never applied to any other endeavor. Thus, people are free to choose their own doctors, lawyers, accountants, contractors, architects, etc. even though they usually know nothing about medicine, jurispru-

dence, bookkeeping, construction or design. It's part of the ethic of our country that everyone is *by right* their own boss, and entitled to do whatever they wish for their lives, including making mistakes! We don't deprive adults of this basic right, even when we think some expert might do a better job of choosing.

In addition, the argument as to teachers is specious on its face. The people most knowledgeable about teaching are teachers themselves, and they don't have any more say in selecting their peers than students do!!! Administrators do the selecting, and your average administrator hardly ever sets foot in a classroom; when he or she does, it is usually under such contrived conditions as to be laughable. Nor has the average administrator *taught* for years, so they are usually far removed from what is going on in the classroom currently. The truth is, present day selection of teachers is done by the parties *least* qualified to do the selection. Even parents are better able to evaluate teachers, since they see the results of teachers' work in their own homes.

Of course, the people most savvy to what a teacher's value really is are the students themselves. They know better than anyone when they are learning something and when they are not; when they are treated with basic human respect and decency and when they are not. Students understand this splendidly, whether they make good grades or poor grades, and the students' evaluations of teachers performance, if asked for carefully and with respect, should be the starting point and chief factor in the hiring or re-hiring of teaching staff. To this should be added the opinions of col-

leagues on the teaching staff and of parents, and the whole should be carefully reviewed by administrators and community representatives before a final decision is reached.

Think about it. At first sight, my simple proposal looks radical, to involve students in the selection of teachers. But the truth is just the opposite: what is radical, and unacceptable, is keeping students *out* of the process that determines who will hold sway over them. It's just as poor an idea, just as un-American, as having outside experts choose the people who will govern us. We fought a war in 1776 to do away with that notion once and for all. Isn't it long overdue to extend the principles we fought for back then to our children today?

Democratize the Selection of School Superintendents

Recently, a new superintendent of schools was chosen in this a suburban town outside Boston. Once again, the utter bankruptcy of the selection process was revealed for all to see, but few to comprehend.

The problem is simple and deep-rooted. Our schools are supposed to develop our children into adults who are responsible citizens in the community at large. The main goal of our expensive, extensive educational system is to help the home endow each child with the nobility of character suitable to the greatest democratic republic of all time. We expect the participants in the learning enterprise to be aware always of this noble aim: to be honest, diligent, enterprising, compassionate, strong, charitable, just, and honorable, and to be prepared to take their proper roles in our society.

The single person most directly responsible for setting the tone in our schools is the superintendent. It is he (alas, rarely *she*) who has the greatest direct effect on the day by day, year by year operation of the educational enterprise – on the teachers, administrators, specialists and students. He inter-

acts with all the players, promotes their harmonious activity and sees to it that the goals are reflected in action.

There's the rub! The constituency directly affected by the superintendent's actions and decisions is the staff and student body of the schools. And this constituency is essentially frozen out of the process that selects the superintendent!

I cannot emphasize this glaring defect enough, nor will I ever understand how the present state of affairs can be allowed to go on unchallenged. The world of education drowns in an ocean of platitudes: "These are critical times." "The schools are not teaching, the students are not learning." "Teachers are not given the respect that is their due." "Students are undisciplined and don't respect community values." "Drugs, sex, illiteracy, ignorance dominate our campuses." But the greatest single truth of all, on which our nation was founded, is never heard echoing through the halls. We seem to have forgotten that the essence of the American Way is that people affected by decisions ought to be the main participants in making the decisions. It is this principle, and no other, that has brought us two hundred years of unparalleled growth and domestic tranquility in the face of wars, economic depressions, and waves of immigration from all corners of the globe. No benevolent autocracy has ever come close to achieving similar results.

You want to improve the schools? Start at the beginning with the process that selects the person who guides the schools. Bring in the teachers, the support staff, the administration and the students, *all* the students. Find a way to make those who will live with the new superintendent day in, day

out look for candidates, interview them, get to know them, judge their strengths and weaknesses, and reach a *modus-vivendi* with the one finally chosen.

Does this sound too radical? No more radical than having the citizens of a town, men and women, rich and poor, learned and ignorant, all races, nationalities, and religions, choose their own selectmen, for example. Or would we rather have a governor's committee make that choice for us?

Only Student Involvement Can Bring a Sense of Justice to Our Schools

One of the most difficult ideas to convey to children is that of justice, as reflected in the social order. The concept itself is complex and multi-leveled. It has to do with the development of fair rules of behavior for human interaction; with the interpretation of these rules in the context of daily life; with the acculturation of new members of the community to these rules; and with the fair monitoring and enforcement of these rules. Each of these aspects involves a great deal of human wisdom and judgment, much of which comes only through years of accumulated experience.

At first blush, the task of teaching justice to a new generation of youngsters seems forbidding. Viewed as an exercise in teaching moral philosophy, the task is virtually unattainable, as every moral preacher in history has found out. You can't just talk at people about good and evil, right and wrong, and hope to affect their actions. The reason is simple: if the hearers are young and inexperienced, such talk is boring and relates to nothing they can lay their hands on. If the hearers are older, they are usually set in their ways and unaf-

fected by mere talk.

The challenge is this: how do you teach a socially acceptable concept of justice to children in a way that will acculturate them, interest them, involve them, and affect their future behavior? The answer lies in two words: *through experience*.

Consider the first aspect of justice, the development of rules governing human interactions in the community. In our society, we expect these rules to emanate from the community, in what we call a “democratic process” of legislation. Western democracies are based, among other things, on the belief that regulations made with the participation of all affected members of the society have a better chance of being valid, and of being *considered* valid by the affected parties.

The chief non-family social setting of children in developed societies is the school. What better place to begin to give children the experience of democratic rule making, with all the trappings? Where better to learn the art of debate, the need for taking other people's views into account, the benefits of open-mindedness, the balancing forces of personal and community interests, the nature of political power-blocs, the joy of victory and the anguish of defeat, the ability to recoup a loss and plan for future gain?

It would seem almost essential to begin teaching children in the real context of their early social setting, the school. Yet, this is almost never done. Small wonder that we hear on all sides a litany of complaints about adolescent lawlessness and indifference to community welfare.

Consider another aspect of justice, law enforcement. In

our type of society, we hold law enforcement to be a product of the democratic order, engaged in by public servants chosen directly or indirectly by the people and accountable to the people. We hold trials before our peers, and accept judgment from our equals. Again, the idea is that the fairest and most acceptable form of enforcement in a free democratic society is one that involves the whole community on an equal footing.

Here, too, the place children should have for developing their sense of justice is the school, where they spend a dozen or more of their formative years sheltered from the outside world, held tightly in their own child-centered world. What could be more important to their future behavior in adult society than to develop, through experience, an understanding of the subtleties of law enforcement? How enriching it would be to deal directly with the evaluation of evidence, the consideration of extenuating circumstances, and the careful balancing of such ideas as prevention, deterrence, vengeance and rehabilitation.

The schools should lay great emphasis on the development of a sense of justice in children through direct experience. They should operate along lines that parallel the realities of adult experience in the surrounding community. All rules, without exception, should be created by a legislative body in which every student and every teacher has a voice.

Similarly, all law enforcement should take place through a judicial system in which everyone participates. Students should be involved in investigating infractions, trying alleged rule-violators, and deciding what to do with guilty parties.

The result would be a student body that learns about justice through active participation in its definition and administration. Graduates would go out into the world ready to take their place at once as responsible members of the community at large.

Empower Teachers to Teach

The quality of teaching in our schools has moved into focus as one of the most important problems in education today. We read and hear on all sides that teachers are not adequately paid; that teachers aren't properly trained; that teachers do not receive the respect they are due from the community. We are told that an impending nationwide teacher shortage is looming and that the lack of teachers has already reached critical proportions in many towns and regions.

But nowhere is the real problem of teaching ever addressed – namely, the simple, mind-boggling fact that teachers in our schools are not allowed to teach! The work they are given has been robbed of the dignity that normally and naturally attaches to their noble profession.

Let me explain. The essence of teaching is imparting knowledge and wisdom from one person to another. The instructor comes to this task armed with expertise, and with the innate desire to transmit it to his pupils. Every person, young and old, loves to engage in this pursuit. Everyone has some areas of expertise they are delighted to impart to others. Four-year-olds teach their toddler siblings, grandparents

teach the four-year-olds. So widespread is the human eagerness to give instruction that we, and other countries, have institutionalized this tendency in the Peace Corps, VISTA, SCOPE, Boy Scouts, and countless other community service organizations.

Now, the main attraction of teaching is the opportunity it gives each of us to pass on *our own unique understanding* of the areas we have mastered. We discover or create our insights into the workings of the world and, filled with the beauty of our new found knowledge, we burst with enthusiasm to share it with others.

Some people are so taken with the love of knowledge, and so imbued with the desire to communicate with others, that they devote their entire lives to the process. It is these people who become teachers. The universal admiration for their work throughout the ages has stemmed from a universal appreciation of what they do.

You'd think modern educators would leave well enough alone. You'd think professional teachers trained in the school of life, or in the academic universities, would be allowed – indeed, encouraged – to develop freely their infinitely varied ways of teaching students who come to them to learn. You'd think people would realize how individual, how special, each teacher's approach would be and how critical it is to allow the teaching process to be free of outside intervention.

Unfortunately, the opposite is the case in our schools. From K-12 and even in most undergraduate colleges, every little detail of the curriculum is dictated to the teacher in advance! The educational system for the most part takes the

idealistic people who wish to serve its highest goals, and turns them into semi-robots who must forego their own uniqueness and produce, in turn, a generation of student semi-robots. What a colossal waste of talent! Worse still, what a turn-off to anybody aspiring to be a teacher!

If the community wishes to attract the finest of its members – the most creative, thoughtful and caring people available – to grace its classrooms, it must first and foremost restore human dignity and trust to the job. It must say unambiguously to the people charged with instructing the young, “We respect you for what you are trying to do, and we trust your judgment in choosing the right way to do it.” The crisis of morale in the teaching profession will never be resolved until teachers are liberated from their straightjacket and given the full measure of confidence that they deserve as the mentors of a free society.

American Education Must Not be Nationalized

The new drive for a national education policy, and so-called national standards for students, threatens to wreak havoc with our country's schools in a manner far more damaging than any danger we presently face. It is another in a long list of instances where free Americans look with nostalgia upon social systems where “order” and “good sense” prevail.

The new models our leaders are looking at with envy range from the Japanese system (and other similar Far Eastern nations) to the Western European system, which are seen to produce wonderfully educated graduates who know ever so much math, science, literature, etc. International comparisons of standard tests are made, and we are told that our children lag far behind the rest of the cultured world in the amount of knowledge they have and in their ability to face the complex technological world of the twenty-first century. And so the rush is on to emulate these other countries, and push through some great new initiatives that will force youngsters from Maine to Hawaii to buckle down and get smart.

I am reminded of the frenzy that gripped many of the leading intellectuals of this country in the 1930s, when we were in the grips of a terrible economic depression, to sing the praises of the wonderful social systems to be found in Italy under Mussolini, in Germany under Hitler, and in Russia under Stalin. It seems that the many of our more educated pundits just couldn't resist being attracted to the clearness of purpose and strength of will that characterized these societies. Much the same pattern repeated itself in the early 50s, when it was the rage to sing the praises of Communist China, and compare its alleged social progress favorably to whatever was going on elsewhere in the non-Communist Third World.

Now, the trouble with all this is twofold: first, the simple realities are ignored; and second, the simple values of American freedom are set aside in favor of the benevolent dictatorship of a benighted plutocracy. Let me explain.

The simple reality is that for all the seeming defects of American education, which we have been hearing about since the mid-50s when the Russians beat us into space, the United States is still acknowledged *throughout the rest of the world* to be far and away the international leader in innovation, imagination, and business administration. Regardless of what columnists and media people tell you, this is the fact; and the proof can best be seen from the popular phrase, "money talks": after all, the major reason for our country's so-called unfavorable balance of trade is that foreigners everywhere – *especially* Japanese and Western Europeans – want more than anything to invest their money in the *American*

economy, because they are convinced that the greatest progress and the richest profits will be produced here. In light of this, it hardly makes sense to compare our schools unfavorably with the schools of these other countries. To paraphrase one of Winston Churchill's most famous sayings, there is no doubt that American schools today are terrible, but all the others are certainly much worse, and we would be fools to trade our system, however bad, for any system that clearly has produced poorer results.

So much for looking elsewhere for models. The more important point is that personal liberty lies at the root of the American system. From the earliest days, our forefathers understood that the only hope for perpetuating liberty here lies in inculcating its values in our young, from the very tenderest age; and they were unambiguously clear in grasping that to do so, we must forever protect our schools from domination by a central government. The Constitution carefully did *not* list among the powers granted to the Federal Government that of regulating education. This important responsibility was jealously reserved to the various states, with the full understanding that this would mean that American education would be extremely diverse in its essence. That's the whole point, repeated over and over again by the Founding Fathers and by their successors ever since: liberty is dependent on diversity, and the chaotic jumble of the free marketplace of ideas is by far the most fertile soil for the development of new ideas, and for the ultimate triumph of workable concepts over poor ones.

The idea that the Federal Government should become

involved with education throughout the country on a massive scale never even entered the heads of our political leaders – not even in the New Deal days of Franklin Roosevelt, when Washington began to intrude into every nook and cranny of our lives – until the Kennedy Administration, and this idea remains one of the catastrophic legacies of that era. That Republican Presidents should champion it is a mystery, the more so since they often speak eloquently on the importance of personal liberty to the very fabric of a good society.

I want to make my position quite clear. I think that the standard methods of schooling promulgated by the current educational establishment are deeply flawed, and that we are due for some radical changes in the decades to come – changes that can be glimpsed in a handful of innovative, experimental schools that dot the country. But I would fight with every ounce of strength I have against anyone who proposed to adopt as a *national norm* the model of school that I champion! Leave local control of schools alone! It is right. And it will always, in the long run, winnow out the best from the worst on its own, without the help of experts sitting in Washington or anywhere else; because no-one is more deeply concerned with schooling than the parents and the neighbors of the children who are to be educated.

Is There an “Ideal School” for the Nation?

A few years ago, then U.S. Secretary of Education William Bennett unleashed upon an unsuspecting nation his blueprint for a “dream high school” governed by an “ideal” core curriculum, which he was gracious enough to provide. Bennett's comments sent shock waves through the educational and lay community. People everywhere rushed to compare their local high schools to the Bennett ideal, and bestowed lavish praise on those that best measured up. Even the critics granted Bennett his basic premise, and differed for the most part on details of what the curriculum should contain.

Now as far as I'm concerned, William Bennett is as entitled as anyone to let us know what his dream school looks like. He is a qualified professional with long and distinguished public service, and his views certainly deserve a respectful hearing. The problem I have is with the implication, strengthened by Bennett's powerful position as dispenser of trainloads of money, that Bennett's dream has to become the nation's model as well. If you looked closely, you could see the armies of grant applicants all over the country

positioning their strategies around the flattering satisfaction of Bennett's wish.

The truth is that the millions of youngsters growing up in America today are entering a world more varied than any other in history, and becoming even more complex every year. No one, however brilliant, has the foggiest idea what the future holds, or how we will get there. It is absurd on the face of it to think that any one model, any single form, is appropriate for the education of children. Let Bennett propose one ideal, and let others throughout the land propose theirs, but what the Secretary of Education should really be saying in his official capacity as promoter of the national welfare is that we should encourage and sponsor as great a variety as possible of different types of schools, based on the dreams and ideals of as many thoughtful educators as are available, and let the public, and history, choose freely among them. Pluralism should be the goal, not slavish imitation of one man's blueprint for success.

It is no small irony that a Republican administration which loudly proclaims its belief in diversity, in local control, and in decentralization of power, should condone the notion that a single ideal format, emanating from Washington, is suitable for everyone, everywhere. Is there really as little difference between Democrats and Republicans as this example might indicate?

I think we should let Secretary Bennett know that we appreciate the careful thought he has given to the question of schooling for the young, and we respectfully, but most emphatically, disagree with his fundamental premise that

models exist for nationwide emulation. *Diversity* should be the guiding principle in these days of rapid change, and from the experience we gain in time by observing alternative possibilities we may eventually discern the outlines of the forms that will serve us well in the future.

If it's Broken and Can't be Fixed – Search for Something New and Better!

Let's face reality.

Every one of the current proposals for educational reform and improvement, at the local, state, and federal levels, is doomed to failure. Even though some of them may involve, once again, massive infusions of funds into schools.

The problem with our schools is not money. We know this, even though we refuse to acknowledge what we know. As a culture, we are too wedded to the idea that money, which is essential to the creation of wealth and prosperity, is therefore the prime wherewithal to achieve the resolution of all problems – social, scientific, medical, artistic, whatever. Nevertheless, all our efforts to create successful schools by increasing our school expenditures have met with repeated failure, and will continue to do so. They entirely miss the point.

The problem with our schools is not curriculum. We should have learned this lesson from the countless curriculum reforms instituted over the past forty years (and longer), none of which brought about the desired results of a motivat-

ed, educated citizenry. The best minds of our universities, teachers' colleges, and school-related institutions have been turned to this effort, to no avail. Neither the material, nor the pedagogical methods, nor the presentation, are at the root of our present plight.

The problem with our schools is not poor teachers, nor poor teacher training, nor lack of respect for teachers, nor lack of adequate pay for teachers. None of the above. We have surrounded the people entrusted with our children's education with an astounding array of support personnel – counselors, specialists, coordinators, administrators, secretaries, development advisors, psychologists – virtually all absent from the schools of the early part of this century. The result? An unending series of demands for more, more, more in the way of teacher recompense and support.

The problem with our schools is most certainly not poor facilities, or lack of adequate – or sufficiently modern – equipment. Elaborate buildings constructed during the past thirty years have not helped. Nor have all the highly touted “secret weapons” of modern educational technology – audio-visual equipment, television, computers, and the like, each of which was introduced with much fanfare as the ultimate solution to the crisis in American education.

And because the problem lies not with funds, nor curriculum, nor teaching staff, nor physical plant, none of the current proposals will work. All the “reforms” begin from one or more of the above tried and failed starting points, and promise – as every new educational initiative in the past has promised – that this time they will do a better job. Only they

can't. Any more than Gorbachev and Perestroika could save the Soviet Union.

What is the reason nothing will work? Simply this: the current educational system is based on premises that are no longer valid for our society. The underlying hypotheses that led to the formation of our public school system, and of the private schools that basically mimic the public schools (at greater expense and with more pretensions) – those hypotheses have outlived their usefulness, and are as irrelevant as horse-drawn carriages were to twentieth century America.

What this country has to do, instead of rushing headlong into an ever-more-frenetic repeat of old mistakes, is take a breather, and re-examine the philosophy behind our schools. We must talk about what schools are really for; what we really know about learning and teaching; what a successful citizen in 21st century America should be like.

And we should make a thorough search – so easy and cheap to do, and so rewarding! – through all the remote corners of this land, and of the world, to locate and understand and analyze all the truly innovative and different kinds of schools that have been created in recent years, to see whether they might actually have something to offer.

The educational establishment has been acting like the military high commands of both sides in the First World War. Then, for four years, the most highly trained professional soldiers in the world kept repeating, at ever higher cost, the same tactics and strategies that had failed at every turn. And they kept it up until an entire generation of European youth had been slaughtered, twenty million vigorous young men,

the flower of Europe from the Urals to the Atlantic. Our educational leaders are creating their own version of that catastrophe: they are dooming wave after wave of school-age children to mental, intellectual, and psychological stultification by imprisoning them in sterile schools and methodically dooming them to mediocrity.

The solution to the current crisis in education will be found only in truly new ideas and really innovative approaches that bear no resemblance to what we now have. We should initiate the philosophical re-evaluation and the search for successful prototypes immediately.

Time for Something Completely Different

Once again the hard realities have shown us that the present system of education in this country is at a dead end. The recent accounts of falling SAT scores are just another in a long series of disastrous reports indicating that our schools are failing.

Let me make something clear at the outset. I am one of those people who believe that SAT scores, and exams, are utterly meaningless measures, that have nothing whatsoever to do with a person's success in life. As far as I am concerned, these tests should all be discarded, lock, stock, and barrel. And designing curricula that enable students to do well on these tests is a waste of time and human potential.

But my views, and those of the school at which I work, are far outside the mainstream. The fact is that the prevailing mode of education believes, among other things, that it is a proper goal of schools to prepare children to do well on SAT's, and on similar exams at the pre-college level. This goal is, indeed, one of the centerpins of education today. It is also widely held by professionals in education (and, unfortunate-

ly, by much of the public) that a good school is one that has students who score well on the SAT's.

Given this situation – given the consistent and ever-worsening failure of schools to meet their avowed goal – it is obvious that something is terribly wrong. The first stab at correcting a problem is usually to tinker with the existing system. That is what we have been doing for some thirty years, ever since John Kennedy became President and put educational reform near the top of his priorities. Year after year we have been producing massive curriculum modifications; huge reorganizations of school administration; influxes and outflows of hordes of students from one school to another; major retraining of teachers at all levels; huge infusions into schools of auxiliary personnel such as psychologists, counselors, and specialists; and an absolutely staggering amount of cash, cold cash, raised by imposing increasingly burdensome taxes on you and me.

What has all this tinkering produced, relative to the schools' own goals? Nothing but an endless series of complaints that we have not done enough for our schools! Nothing but flat or decreasing student performance by all measures that have been applied during these decades!

Now, when year after year of desperate tinkering, fueled by ample funds, doesn't manage to correct the problem, the usual response of sensible people is to come to terms with the fact that the system itself has failed, and cannot be salvaged. That is what we all do in our daily lives, and what cultures always do as they move, for example, from Ptolemaic astronomy to the Copernican system, from Aristotle's physics to

Newton's physics to modern quantum physics, from absolute monarchy (or cruel tyranny) to freedom and democracy, from pre-industrial to industrial to post-industrial economies, and so forth. At some point, the light dawns: the old system is dead, and an altogether new one must be fashioned.

It should by now be clear that the prevailing educational system cannot be saved. Period. Throwing money at it is a classic case of good money after bad. Designing new twists to the curriculum, adding computers, tightening discipline, adding days or weeks to the school year, putting more teachers into the system, diagnosing more so-called learning disorders – none of these have worked, can work, or will work.

The light dawns more quickly certain times than others. The complete bankruptcy of Communism as a form of government and social organization hit the world in the course of a few months. No more tinkering. No more “perestroika”, no restructuring of the party. Instead, total replacement, by something utterly unlike it.

Perhaps educators are slower than others to realize when they are dealing with obsolescence. But enough is enough. In schools, it's time for something completely different.

Let's Find the Schools That Children Love to Attend

“Back to school” time is a season that sets into sharp focus the deep malaise that has permeated our educational system. For the simple fact is that the overwhelming majority of children of all ages are saddened by summer's end, and rue the moment they must once again enter their classrooms.

Now, it's been over two thousand years since the great Greek philosopher Aristotle noted that “human beings are curious by nature” – an observation that had been made repeatedly from the dawn of time, and formed the basis of childrearing practices for virtually every known culture. Indeed, anyone who has spent time with infants knows that their lust for knowledge is insatiable, that their drive to explore is all but unstoppable. Little children cannot get enough of learning. They are always in motion, they can't wait to get going in the morning and they resist mightily falling asleep in the evening. When awake, they devour their environment with every sense at their command.

Given this state of affairs, so generously provided by Nature, one would expect every child to await eagerly any

new opportunity to gain knowledge. And schools, as places that supposedly value learning more than anything else, should be the objects of universal adoration by all who are privileged to attend them.

Yet, the opposite seems to be true. The vast majority of children loath school, or at best are dully indifferent to it. They do not jump out of bed in the morning raring to get to their classes, they do not hang around school as long as they can in the afternoon, until they are thrown out, they do not cry on Fridays nor do they moan during vacations.

This simple observation is enough – indeed, much more than enough – to demonstrate beyond a shadow of a doubt that our schools are sick institutions. No test scores, no comparisons to other countries, no “expert” opinions can add further meaningful substance to this basic truth.

Any attempts to cure this situation must not begin with hifallutin theories, or expensive gimmicks; we already *know* that all the stock remedies proposed to date don't work. Good, common horse-sense dictates a different approach altogether. Let's look around us and locate those rare schools that children of all ages are *dying* to attend, day in and day out. That's the first sensible step towards meaningful reform. Let's find these unusual schools, and subject them to close, careful scrutiny. Maybe, just maybe, they will give us some real clues as to what has gone wrong with our system of education, and what can be done to set things right.

We are a country that prides itself on being practical. We are pragmatists, not raving ideologues. We like to make things work, and we like to make use of new models that

promise to pan out. We are creative and innovative, always on the lookout for a better mousetrap, a better solution. It's long past overdue for us to apply this practical approach to our schools.

Beware of “Standardization” Dressed up to Look Like “Choice”

Choice in schools is the rage these days. It seems that every year we come up with a new panacea for an educational system that has clearly broken down. This year, and probably for several years to come, the cure-all is “choice” – making it possible for parents and children to shop around for different schools, and helping them to do so by supporting them financially at taxpayer's expense.

The idea underlying choice is the free-market system. In economic theory, it is widely believed that the best way to promote innovation, variety, creativity and prosperity is to allow everybody to offer whatever products or services they wish on the open market, accessible to all. Over time, the general public picks out the most useful or effective products from all the others, and you get a kind of economic Darwinism, the survival and flourishing of the fittest producers. Several centuries of experimenting with all sorts of economic systems have convinced most people that there is a lot of merit in this kind of a system.

But the key to its operation is the word “free” in “free

market". As soon as any impediments are placed in the way of the free flow of products, distortions take place that disrupt the process of selecting the best, and creating real variety. The most notorious barriers to economic freedom are those created by monopolies – whether governmental or private – which control all or much of a segment of the market. Monopolies make a mockery of choice, and their continued existence is a serious threat to economic well-being. The evil of monopolistic practices was recognized very early in this country; over a century ago, laws were being fashioned to control or remove them. Those segments of the economy in which monopolies have been effectively removed remain to this day the most vigorous ones.

All this may sound remote from education, but in fact it goes to the heart of what is wrong with the current infatuation with "choice". Today, throughout this country, education is controlled by an establishment that is committed to a particular mode of schooling. Virtually all the so-called "alternative" schools are variations on the same basic theme, as are most home-schooling schemes. One way or another, there are programs based on some agreed core curriculum, and there is some form of testing or evaluation as to the mastery by the students of that material, and there is some sort of gradation or pacing by age. Approval of new alternative programs is always in the hands of the current establishment. Really radical innovations – the kind that may, in the end, save our schools from total obsolescence – are rarely allowed to exist, and if they are, it is at the sufferance of "benevolent" overseers.

To put it bluntly, “choice” as currently being touted is a scam. Parents and students are given the illusion that they can choose freely from a smorgasbord of varied offerings, when in fact they are being held tightly in the grasp of the existing educational paradigm. It reminds one of Detroit, with its dozens of different makes and models of the same basic car.

We will only be able to break out of the current educational slump if we agree, at the very least, to create a truly free market of schools, independent of the current educational establishment, without censorship or control from the outside. New schools must be able to explain their programs as best as they can, and win students solely through performance, not through some authoritarian seal of approval. I have no doubt that in such a truly open market, this country's ingenuity will once again reveal itself in new forms that are revolutionary, innovative, and thoroughly appropriate for our post-industrial civilization.

Academicians Are No Cure for Ailing Schools

People are talking about the pros and cons of a grand new experiment to improve public education: Boston University's takeover of the public schools of Chelsea, Massachusetts. Emotions run high on the subject. No one denies that Chelsea's schools are in trouble; that poor, beleaguered town has had more than its share of economic and social disasters during the 80's. The fur flies when remedies for the situation are discussed.

For now, the issue has been resolved: Chelsea's children are the guinea pigs for an audacious attempt to join the public and private sectors of education. The city's public schools have contracted with a private provider, Boston University, to use its unlimited expertise for the development of educational programs in the schools.

It is important to understand exactly what is happening here. No one, least of all B.U., claims that the university has some patented new miracle-cure for the country's educational problems. The claim is much simpler – namely, that B.U. as an institution of higher learning has within its faculty a

collective wisdom significantly greater than the wisdom available among the teachers and administrators currently employed by the city of Chelsea. Indeed, the underlying assumption operating here is even broader. It is that the learned Doctors and Professors who teach in our country's Schools of Higher Learning possess insights into child development and educational theory far more advanced than those of mere every-day run-of-the-mill schoolteachers and K-12 specialists. Academia is looked upon as the source of talent and information that will lift public schools out of their doldrums and make them effective.

As a person who has spent his lifetime both in Universities and in the front lines of teaching children 4-years-old and up, I consider this development to be potentially disastrous. The last time Professors entered into elementary and high-school education in a big way was in the early 60's, when the Kennedy Administration, heavily influenced by its Cambridge connections, turned to academicians to close the alleged gap between our schools and those of the Soviet Union. At that time, Soviet successes with their fledgling space program triggered an outburst of insecurity in the American public, and the cause of our supposed inferiority was thought to be our poor schools. Does this sound familiar?

[I can't resist an aside: Does anyone at all remember now how very wrong we were back then? Does anyone recall President Eisenhower's repeated warnings that we should not be hysterical, that there was no "gap" between us and the USSR? Now that the iron curtain has melted down, and we

see what really goes on within the Russian Empire, is anyone at all eating humble pie for misleading the American public so badly during those hectic 60's?]

Anyway, the Professors moved in with a vengeance (and, I must confess with considerable shame, I was right there with them, as enthusiastic as anyone). What was the result? In a word: MAYHEM. We got the New Math, the New Physics, the New Biology, the New English, the New Everything – a sweeping restructuring of every aspect of school curricula. In its wake came mass confusion for teachers and students alike, from which we have not yet recovered. Why did this happen? Because, as Jonathan Swift so mercilessly pointed out over two hundred years ago, most Professors are out of touch with every-day commonplace reality. The grand schemes and noble theories that sound so magnificent when presented in a University Seminar usually turn out to be utterly irrelevant to the lives of real people who struggle with the nitty-gritty of life.

It has taken almost thirty years for some – not by any means all – of the damage wrought by Academics on school curricula to be repaired. So what do we get now? Another attempt to insert Professors into the front lines of public schooling!! You can be sure that the hype will be terrific, that we will hear – as we did back in the 60's – a constant flow of glowing reports on the great successes of the B.U. experiment in Chelsea. All I can say is, beware. We learned our lesson once, and we shouldn't have to spend another thirty years learning it again. Academicians are not magicians possessed of some special know-how that will make public school prob-

lems vanish. The solutions we are looking for lie within ourselves, and we need only to be open to our own insights to find them.

Long-Range Planning Should Focus on the Fundamental Goals of Education

A number of towns and cities have recently immersed themselves in vigorous long-range planning activities for their schools. The ever-rising costs of education, and the ever-increasing number of unexpected expensive surprises that have plagued school administrators, have finally convinced people that it is worth time and effort to look into the future and anticipate upcoming needs.

So far so good. No one can quarrel with the idea that planning is a better approach than solving problems off the cuff. This is especially true in areas that are demonstrably responsive to predictions; for example, building maintenance, which has become a science, one that is ignored at the peril of disaster. Another fruitful area, although somewhat more ambiguous, is demographics, which deals with population fluctuations – in this case, of school-age children. Demographics must be approached with a certain caution, since recent decades have repeatedly demonstrated that long-term predictions of population in a given town or region are prone to massive error.

The real problem lies in the nature of educational planning taking place today. For the most part, it in fact consists of studies that deal with the physical plant of the school system and its population. The center of preoccupation has to do with how many, and which, schools have to be closed, reopened, remodeled, or constructed from scratch. Receiving much less attention are questions of curriculum, which presumably have to wait until the powers that be announce what is and what isn't important in any given year.

But the question that receives virtually no attention in all this planning is the only one that really counts: namely, *what is education all about in these waning days of the twentieth century, and what role, if any, do the schools have in the larger picture?* For if there is anything that should be crystal clear to anyone dealing with children these days, it is that the current conception of education is irrelevant to all but a tiny minority of them, so much so that they are fleeing from it in astonishing numbers. There are, to be sure, any number of paths along which to run away – boredom, inattention, drugs and alcohol, poor performance, and just plain dropping out. Whatever the path, they are all marked with a prominent signpost: “Today's youth are overwhelmingly uninterested in, and poorly served by, the nation's schools.”

Why should this be so? Two generations ago, even one generation ago, most of those who went to school acknowledged its importance, and somehow tried their best to do what was asked. Why has this basic trust children used to have in the *value* of their schools all but disappeared? This is the question the planners should be attacking with all

their energy, before the entire structure crumbles away from obsolescence.

Don't underestimate what is going on these past years, and ever more forcefully as time goes by. The chasm between the real needs of America's future and the assumed needs underlying the current educational system is widening at an alarming pace. The country as a whole is rushing helter skelter into a post-industrial era in which the only significant players will be people with initiative, with self-motivation, with the ability to define and solve problems – people who are visionaries, creative thinkers, and artists of the human spirit. People who are not afraid to think for themselves, or to take risks in exploring exciting and often dangerous new avenues. All our political, economic, and technological institutions are reshaping themselves in this direction – and this is a fact that the rest of the world understands perfectly, as indicated over and over by its unceasing fascination with the nature of American culture. It is also a fact that children understand intuitively, in their unerring instinct for growth and survival.

The last ones to grasp what is happening are, unfortunately, the educators who are supposedly assisting youth to grow into productive adults. The educational establishment, from end to end, is still deeply mired in a system that was designed for a different age, and for different outcomes. And even as a few leaders pay lip service to “teaching kids how to think” or “teaching kids how to take responsibility”, no one seems to have the foggiest notion how to translate that into everyday practice. For if anything is certain, it is that schools

are not presently designed to encourage real independence on the part of students at any point.

I am afraid that “long-range planning” will continue to be a matter of buildings and schoolrooms and transportation and teacher salaries, despite the pressure of real historic events. History tells an unending succession of tales of people who fiddled while their world was vanishing. Isn't it time for common citizens to demand that those responsible for leading their children into the future stand back and take a really hard look at what the future holds, and what schools at present should do to get there productively?

PART III

School Finances

Changing Times: When “More” Doesn't Work

Pouring more money into our ailing schools is like sticking more mustard plasters on a dying tubercular: the patient is ill, but the cure has nothing to do with the disease.

In the 1940s, schools were simple affairs. We slogged through our “three R’s” day after day, had little by way of classroom entertainment, nothing by way of “support” or “therapy.” We were preparing for a world that seemed simple, and we all knew that economic survival meant hard work, often boring and repetitive. School budgets were modest, class offerings limited.

It all changed in the late 50s. Sputnik, the first Soviet satellite, gave us a huge jolt, and suddenly America woke up to the post-industrial age. Everything seemed to get out of hand. Knowledge was increasing at an unheard-of pace. Whole new fields were being created every day. The Bureau of Labor Statistics couldn't keep up with the explosion of new job categories, and the Library of Congress lost track of new academic disciplines. Pity the poor educators. In the 60s, the best minds in the country, from kindergarten teach-

ers to university professors, joined hands to produce new curricula for the modern age. There was “new math,” “new biology,” “new social studies”; everything new, all supported by massive funding, mostly from the Federal till. The rallying cry was: MORE. More money, more equipment, more teachers, more courses, more specialists; and many more guidance counselors and psychologists to deal with the spiritual confusion that seemed to be epidemic among our youth.

It hasn't worked. We know it, and we are frustrated. Our massive efforts have produced more troubled students, more functional illiterates, more frantic parents and more discouraged teachers. Our school budgets are staggeringly large, and there seems to be no end in sight to their growth.

We should have known better all along. History teaches over and over that when times change radically, quantity doesn't count at all. When the Greeks changed history by introducing highly disciplined troops into the science of war, all the massive hordes of Persia couldn't conquer them. A few small vials of penicillin introduced in the 1940s saved more lives than all the millions of worthless potions that had been applied in vain.

Let's stop pouring money down the sink of old methods we know don't work. Variety and innovation are cheap, their costs carried mostly by the spirit and enthusiasm of their inventors. The quicker we open ourselves to looking at real alternatives, the quicker we can rid ourselves of expensive old white elephants.

No More Wasteful School Spending, Please

Most of us ordinary voters are pretty tired of hearing about how little we are concerned with education, as evidenced by repeated and widespread votes to hold the line on taxes. Local government officials, educators, school committees, columnists and editors carry on about how shortsighted the ignorant, uncaring citizenry is; how the future is being jeopardized by selfish people – especially those without school-age children – who don't give a hoot for the development of our nation's youth. Etc., etc.

What a lot of baloney!

It's time these critics wake up to why the vast majority is slamming the lid on expenditures: we want *value* for our money. We have heard it all, year after year: "Give us more money, and great improvements will follow." We have watched government and school expenditures skyrocket far out of proportion to inflation, and the *services have not improved*.

On the contrary, in most areas, the more we spend, the less we get. This is true of what much of our local, state, and

federal government does. Everywhere, almost without exception, costs soar, and the product worsens. Roads deteriorate, officials become ruder, emergency payments are delayed, refunds are not given, our water quality plummets, sewage and waste disposal approach crisis situations, crime rates rise, automobile accidents claim a steady stream of victims, drugs are rampant – the list goes on. All this despite huge infusions of funds over the last thirty years, always accompanied by promises that new programs will cure these ills.

And the schools! Who are they kidding? Are the products of the '80's really an improvement over those of the '30's – or indeed, of the 1880's? Does the average high school graduate today read more, master a greater number of subjects, write or speak better? Even more important, do today's students think better than those of a generation or two? Do they have a higher moral caliber? Are they better citizens? Do they have a greater sense of honor, responsibility, or service than their forebears?

The average citizen knows the answer to these questions. In every case, the answer is: NO! Despite all the hundreds of billions of extra dollars squeezed out of us over these decades, despite armies of specialists, counselors, curriculum coordinators, supervisors, assistant superintendents, teachers' aides, and so forth, despite grandiose schemes to revise curriculum, to introduce new pedagogical principles, to involve new media – despite all this, despite all the noble rhetoric, the truth is known to most everyone who hasn't lost his or her common sense: to wit, our money hasn't purchased what we were told we were getting for it.

So, all over the country, citizens are saying to the elected or hired officials, "STOP". Stop the helter-skelter spending, stop assuming that you can get more money for the asking and for the promising, stop making up budgets that assume higher taxes, stop trying to get your way by scaring us with massive threats, stop making up hokey budgets, stop protecting hordes of unproductive personnel (and laying off the productive ones).

Those of us who are saying "stop" *do* care for our children, our future, our relative position in the world, just as much as anyone does. In fact, we care so much, that we want to be sure that our future is built solidly on age-old values of wisdom, thoughtfulness, thrift, hard work, constant re-evaluation, candor, admission of error and redirection of failure. We want our schools to be good, not extravagant; our services to be courteous and efficient, not bloated and unresponsive.

We want quality, not quantity. A dollar's worth for a dollar spent. And no more taxes until we are thoroughly convinced that all the accumulated baggage of excessive payrolls and supplies, of overpaid administrators and middle management and special consultants, of unproductive personnel and unproven schemes, all have been jettisoned, once and for all, now and forever.

Then and only then, will be listen to pleas for new funding initiatives.

If anyone thinks these are the words of a citizen who is not sufficiently concerned for the future of his country, I say, "For shame!" The greatest threat to the future comes not

from these quarters, but from the mindless spendthrifts who insist on throwing good money after bad until we all collapse under the burden of poor government and high taxes.

A Comprehensive Study Shows that More Money Won't Help Schools Without Structural Reform

For years I have been trying to convince laypeople and educators that *more money* is not the solution to the many persistent problems of our schools. Calling upon my knowledge of educational theory and practice, and my own professional experience in education for over thirty years, I have been using every argument I could muster to make the point that the ills of our schools reflect deeper underlying problems that have nothing to do with budgets, or with a lack of support for education in the American public. Not long ago, a major scientific study was published that leaves no room for doubt on this question.

The study is entitled “The Impact of Differential Expenditures on School Performance,” and was published in the May 1989 issue of the journal *Educational Researcher*. Its author is Eric A. Hanushek, a respected Professor of Economics at the University of Rochester, who has been studying the fiscal aspects of education for over twenty years. The paper is the first and only comprehensive review

of virtually all serious studies made by researchers during the 25 or so preceding years, which could shed light on the important question: what factors are important in influencing the performance of students in schools? Hanushek, after making what he calls “a relatively exhaustive search,” found 187 published studies, all of which he subjected to careful analysis. The importance of his work is simply this: it may well be that any single study done by some educational researcher has flaws which render his or her results questionable, but it is far less likely that the results of almost two hundred studies will all be flawed in the same way. Thus, Hanushek's conclusions rest on a much firmer scientific foundation than any single study could claim. And the amazing fact is that Hanushek has been able to draw some clear, firm conclusions from his analysis that leave no room for doubt or waffling.

Perhaps it would be best if I let Hanushek's own words speak for themselves. Here, then, is his first set of conclusions: “The results are startlingly consistent in finding no strong evidence that teacher-student ratios [in other words, class size – D.G.], teacher education, or teacher experience have the expected positive effects on student achievement. According to the available evidence, one cannot be confident that hiring more educated teachers or having smaller classes will improve student performance.”

His second set of conclusions is this: “Administration and facilities also show no systematic relationships with performance. . . . The available evidence again fails to support the conventional wisdom.”

Finally, his third set of conclusions drawn from all the scientific studies made over the past decades: “Measures of teacher salaries and expenditures per student provide no definite indication of their importance in determining achievement.”

Hanushek then goes on to point out that “there is a consistency” in all these findings, and this is it: “*There is no strong or systematic relationship between school expenditures and student performance*” [Hanushek's italics]. “Indeed,” he goes on, “detailed research spanning two decades and observing performance in many different educational settings provides strong and consistent evidence that expenditures are not systematically related to student achievement.” In fact, a lot of the studies included in his analyses show a *negative* relationship – cases where more money leads to poorer performance!

Consideration of these findings leads Hanushek to make the following important statement: “Two policy conclusions spring immediately from the findings . . . First, because within the current institutional structure expenditures are not systematically related to performance, policies should not be formulated principally on the basis of expenditures. Second, because . . . class size, teachers' education, and teachers' experience . . . are not systematically related to performance within the current institutional structure, policies should not be dictated simply on the basis of such [factors].”

I think you can see that we are dealing here with matters of fundamental importance to the community, that can no longer be swept under the rug. Those few of us who have been crying in the wilderness cannot simply be dismissed as

far-out kooks. Hanushek's work is based entirely on reputable scientific studies, made over a long period of time, by a large number of scholars, studying a wide range of educational environments. Anyone ignoring the results of his survey is putting his head in the sand, hoping that the clear evidence will go away so he can go on pursuing his prejudices, at great cost to you and me, the innocently bleeding taxpayer.

I can think of no better way to end than by quoting Hanushek's own conclusions, to wit: "School reform discussions that begin with the premise that constraints on expenditures are the most serious roadblock to improved student performance are, at best, misguided. Expenditure increases, if undertaken within the present institutional structure, are likely to be dissipated on reduced class sizes or indiscriminate raises in teacher salaries . . . This research raises a number of obvious questions to which, embarrassingly, we have no answers. What causes the apparent waste of resources? Why is there so little pressure for efficient operation of our schools? What incentives will help schools increase their effectiveness? Can the institutional structure be altered to facilitate improved performance? Answering these questions will be key in the long-run improvement of our system of education."

Zero-Base Budgeting is Long Overdue for Schools

The one thing we can be sure of every year is that there will always be pressure to increase the school budget. This is probably a more established Law of Nature than most of the physics and chemistry we learn in school. Indeed, the annual increase in school budgets is a Primary Law, a First Cause, as Aristotle would call it; it has no explanation, no reason, but it determines a whole lot of other actions.

The simple fact is that no one, in or out of education, really knows why budgets always have to increase. There has never been any evidence seriously collected and analyzed to show that better education is related to higher expenditures. Period. There hasn't even been any meaningful evidence that better pay makes better teachers, even though I certainly believe that teachers should be paid a good wage that allows them to live with dignity in the community they serve.

Let me be more specific. There is no reason to believe that the average student today is on the whole better educated, or better suited for a productive role in society, than the average student was fifty years ago, despite the astronomical

rise in school expenditures, far in excess of any and all cost-of-living increases. There is even much concern that school standards have *declined* in that period. It is certainly beyond question that the attitudes of children toward school have worsened greatly in the course of two generations. In the '30's, most children didn't really like to go to school ("no more classes, no more books, no more teacher's dirty looks" was the refrain every summer), but they respected school and generally understood that it was, like cod liver oil, an ordeal one has to go through as gracefully as possible for the sake of the future. Teacher abuse, alcoholism, drug use, rampant vandalism were scarcely factors back then. Today, despite the oceans of money, despite the battalions of specialty teachers, counselors and evaluators, despite extravagant new buildings, modern equipment and up-to-date esoteric courses, the atmosphere within schools has become largely indifferent or hostile, and the vast majority of students come to see school as basically irrelevant to their life ambitions – an *unnecessary* evil, so to speak.

Parents, teachers, community leaders all realize that education has for years been in a chronic crisis, and are basically at a loss for how to remedy the situation. As in any deteriorating social situation from the dawn of time (see Exodus, Chapter 1) the first response of the leadership is to call for stricter control, to *force* today's youth to "toe the line." In 20th century America, bursting with material prosperity, undreamt of in human history, the second standard response to any social problem is to spend more money. And more money. And more money. Neither response has ever worked

in the past, and there is no reason to expect them ever to work in the future.

School Committees are made up of committed, hard working people who are certainly, each in their own way, devoted to improving education. The school system has an accomplished new Superintendent who is not weighted by the baggage of precedent. Everyone – students, teachers, parents – has a deadly serious stake in the future of the public schools. No time is better than *right now* to begin a true zero-base budgeting procedure for public schools: to start from the beginning, to explore every aspect of the schools' philosophy and operation, to ask hard questions and even experiment with more than one answer, if that makes sense. The widest participation must be looked for in this process, and new wisdom tapped from within and without the system.

One thing is sure. Unless we break through the unbending cycle we are now in, rising school costs will remain as inevitable, and as distasteful, as those other fabled nemeses of the human race, death and taxes. At least we try, in our far-flung laboratories, to battle death. At least we try, in periodic spasms, to reduce taxes. When will we really try to reduce school costs?

Unproven Assumptions and Extraneous Expenditures Drive Up School Costs

Every year we hapless citizens are bombarded with almost hysterical cries for MORE MONEY FOR OUR SCHOOLS. Every year, the pattern and timing are the same. Every year, we find ourselves “on the brink of an educational disaster” if we do not find ways to come up with massive new funding. Every year, we are told that if we oppose the requests being made by school officials, we are callously disregarding the welfare of the future generation, jeopardizing our heritage, opting for second-rate status among world nations, etc. etc.

And every year about now – and as often as I can think of something new to say to justify another column – I add my voice to the tiny chorus of people who say: enough! The planners and the administrators and the elected officers who are responsible for bringing these requests before us must go back to the drawing board and start from scratch. They have to ask themselves the basic questions that they have so carefully avoided, and decide what is really essential and what is not essential for a good educational system. They must stop

assuming that every new idea and new program deserves funding, and that every failed attempt to improve the level of education of our children can be remedied by that old universal panacea, *money*, applied in liberal amounts in ever-increasing layers.

Let's get down to some specifics. First, the format of the scare tactics used to extract more funds. We are always told that if the schools don't get that extra half-million dollars, or two million, or whatever, then a dozen essential programs will have to be canceled, or some huge number of teachers will have to be laid off, or some enormous increase in class size will have to take place. The arithmetic always comes out as follows: either give us that extra 5% or so of funding that we are asking for, or you will suffer and 15%, or 20%, or 50% loss of teachers, class size, or programs.

Now, it doesn't take a degree in higher math to figure out that something is hokey here. Why does such a small difference in budget make such a big difference in essential educational outcome? The answer is simple: too much money is being used nowadays on extraneous matters, and on enormous administrative outlays, most of which could be cut down drastically or even eliminated, but few of which ever are! The result is that this excessive overhead of non-educational waste is protected from the outset of the budget process, and all serious attempts to reduce expenditures are steered toward the essentials!

Let's turn now to the crux of the matter: why is the bill for education constantly rising, always well beyond the overall inflation rate, while the product is not only remaining the

same but in some cases even declining? Again, the answer is simple, but unpleasant to face: the plain fact is that most of what is being done to educate children today in the schools is of unproven worth. As a result, each year we add more unproven programs on top of the prior ones, escalating the cost in personnel, materials, and space needs, without ever getting down to the task of evaluating what is going on in the light of harsh reality.

In addition, we allow ourselves to be overwhelmed by glib slogans and formulas, without a clue as to their validity. We assume across the board that increased class size is bad, but we don't have the slightest evidence for the truth of this belief, and much evidence exists to the contrary in a variety of situations. We make assumptions about needs for new or remodeled physical plants, without any clear justification for discarding the old ones. We think that every new problem that comes up in our society can be dealt with by throwing it into some new school program – on drugs, sex education, smoking, drinking, scientific literacy, patriotism, social consciousness, and so forth – but there is scarcely a word to show that this approach is fruitful now or has ever been in the past.

What I am saying, and have been saying, and will continue to say is just this: we the people must demand with increasing stridency that those responsible for schooling be more accountable for the enormous expenditures they seek to extract from us. We must insist with an ever-stronger voice that we be shown more than patronizing condescension when we ask for good, solid reasons for spending good, solid dollars out of our pockets. And we must realize that until we

take a stand together, requiring the same justification that we ask from every other agency or institution – until we do so, we will be subjected year-in, year-out to endless demands for massive additional funds, demands that will require repeated overrides and the eventual effective repeal of any and all limits on taxation.

Standardization is the Chief Culprit in the Runaway Cost of Education

The chief underlying cause of ever-increasing school budgets is *standardization*.

It is also the reason the quality of education provided by the schools has improved little, if at all, despite the enormous sums of money poured into them over the past thirty years.

A thorough explanation of the cost of standardization would take a book-length essay, but I would like to try, in a few words, to provide you with some of the key factors involved. The chief professional victims of the levelling process have been the teachers. Now, if you think about it, a teacher is basically a person with knowledge – a *master* of something – who imparts this knowledge to students, or apprentices. The chief qualification for being a teacher used to be, and continues to be in the world at large, *expertise* in the subject matter being taught. Thus, as far as academics are concerned, you expect trained mathematicians to teach math, trained historians to teach history, trained writers or critics to teach English, etc. And indeed, this is how it used to be in schools, *and still is in private schools*. But if you allow

masters to teach, you must give them the freedom to teach in the way they see fit, within only the broadest guidelines. Intelligent experts develop their own methods of operation and instruction, and they must be given leeway to work according to their best judgment.

The movement towards homogenization of all the nation's public schools led a few generations ago to the replacement of expertise in a field by training in "teaching", as if "teaching" was some abstract science independent of content. The result is that the vast majority of teachers in public schools today possess no advanced knowledge or degrees in their field, but rather possess teacher-training degrees; in fact, if you had a Ph.D. in physics from MIT or Harvard, you would not be qualified to teach high school physics in almost any public high school by virtue of that degree, even if you held a professorship at a graduate university!

This sad state of affairs has had three tremendous impacts on school budgets. In the first place, it has led to the institution of teacher salaries in public schools that are considerably higher than those in private schools, even the most prestigious ones. The reason is simple. If you are an expert in your field, love your subject, and get deep satisfaction out of dealing with it and teaching it, the satisfaction is part of your recompense for working. (This is a generally well-known principle underlying the Theory of Compensation in Economics.) On the other hand, if teaching is viewed as a profession per se, where one has little control over the subject matter and consequently has a much harder time relating to students, the price extracted for such a service will natural-

ly be higher, even though the product you deliver may be poorer!! I am sure every reader can supply examples of this principle from his or her own life experience.

The second heavy price paid by this professionalization of “teaching” as opposed to mastery is in the size of classes, which is a major determinant of school budgets. All kinds of nonsense is heard in discussions of class size and student-teacher ratio, despite the overwhelming evidence that, all other things being equal, class size has virtually no relation to student learning. But there is a simple reason for educators’ insistence that small classes are “essential” to what they call “quality education”: the teacher who is not a master of a subject cannot indeed control a large number of pupils who seek to learn what he or she imparts generally poorly. In an environment where children respect the knowledge and depth of their mentors, it becomes immaterial whether there are twelve, or twenty, or thirty children to each teacher. Examples of this abound outside of the schools, especially when it comes to academic subjects. Indeed, young people of all ages will pack a hall to hear expositions by experts on subjects that interest them, and they will retain what they have heard for years, in great detail!

A third heavy price of standardization is the explosive growth of an educational bureaucracy piggy-backed on the front-line school teachers. Where teachers are given wide areas of latitude and responsibility in presenting their subjects, they can largely be left alone to do their job well. Furthermore, they can be relied on to continue to improve their knowledge and skills in their fields, because they are

deeply interested in the substance of what they are doing. By contrast, when standardized teaching becomes the basic profession, we need a whole army of administrators to coordinate, cross-check, and keep up to date with the latest developments in the “standards” (what an ironic use of a word that once meant high quality, and now simply means “sameness”!). Every citizen, certainly every School Committee member, should study the organization chart of their local public schools with special care, and sit back and ask why there are so very many more (highly paid) administrative and supportive personnel in the system than there were thirty or forty years ago, when our schools did not after all do such a bad job of teaching everybody what they had to know to make it in the modern world.

Standardization is an abomination. It runs totally contrary to the underlying ethic of America, which stresses individual variation. It is totally unnecessary in the post-industrial era which we now inhabit. It is being abandoned helter-skelter by all the Communist-bloc countries, who have tasted it fully for many decades. In those countries where community-wide homogeneity is held to be a virtue, such as Japan, many of the leaders are questioning its validity in today's world, and many of the businessmen are taking their money elsewhere – for example, to the United States! – for investment. Standardization in schools is costing us dearly in higher teacher salaries, in smaller classes, and in a far larger bureaucracy than would be needed if it were abandoned.

All Parties in the School System Must be Involved in Setting Budget Priorities

How to maintain the high quality of education in an era of drastic budget-cutting is a problem that increasingly cries out for a solution. With every passing week, it becomes clearer that both State and Local governments will continue to be strapped for funds for many years to come, and no amount of groaning, or stop-gap taxation, or emergency relief will alter this fact. We must face it squarely and deal with it; and the key question we must answer is how to obtain the best results with what we have available.

The art of budgeting effectively is, first and last, a matter of setting priorities. Just about every individual, family, or institution could probably find ways to spend astronomical sums of money every year if there was no limit to their incomes. The fact is, each one of us has a very finite quantity of money to spend, and what we do with it is determined by how we organize our wish-list in order of importance. Furthermore – and this is probably a most important factor – *how satisfied we are with our financial situation depends critical-*

ly on how clearly we have set our relative goals. People who have managed to decide their priorities carefully, so that the key ones are funded, will tend to be far more content with life than people who spend money helter-skelter and always find themselves short of cash for something important that has not been provided for.

All of us have seen examples of good and bad budgeting in our friends, or in local businesses, even if we do not always recognize the phenomenon in ourselves. We all know people who complain that they cannot afford clothes, or a vacation, or important medical care, but who squander their money on eating out, or entertainment, or their cars without really valuing any of these items that highly. We all have worked in environments where money is inexplicably wasted on unimportant frills, while basic comforts are neglected.

What does all this have to do with schools? A whole lot. The discontent voiced by the educational establishment with regard to school funding is due entirely to the growing gap between the schools' wish list for funding, and the available moneys. And the reason this gap is growing, rather than decreasing, is the inability of school systems to set priorities in such a manner that the general clientele will be satisfied with the results.

Who are the clients of the schools? I think the answer to this question is the key to the discontent. The most direct clients are the students, for whose benefit the entire system has been established. Second only to the students are their parents, for whom the schools are a central component of their sacred trust of child-rearing. Indeed, if the students and

their parents are content with the schools, then I would call it a very satisfactory situation.

Next in line as clients are the teachers, who are needed to perform the key activities that make the schools happen. Schools are meant to provide the setting for children receiving an education, and teachers are supposed to be the living resources within this setting. Without them, the schools in their essence simply do not exist.

The client list continues, but ever more remote from the central purpose we are looking at. There are support staff, administrators, and finally the public-at-large, which derives an overall benefit to the general welfare from having educated children grow up to be productive adults.

Now look at the list of who sets budget priorities for the schools. Lo and behold, the most remote clients are the only ones who have meaningful inputs!! Think about it. The primary responsibility for drafting school budgets lies with the public sector, via the elected school committees; and the key decision-makers who work with the committees are the administrators, the school superintendents and their various associates. Teachers, while they may occasionally be consulted for their opinions, have no real place in the process at all (except as a special-interest group, seeking to increase their share of the budget pie in the form of salaries and benefits). Parents and students, the primary clients, are essentially outside the process altogether.

What a topsy-turvy world! No wonder the educational system is in turmoil! More important than any other remedy or reform is the pressing need *to include students, parents, and*

teachers as full-fledged participants in the process of setting priorities and determining annual expenditures for the schools. This is, indeed, the only hope we have of coming up with solutions to our money problems that will have extensive support, widespread understanding, and a reasonable shot at producing a good outcome. When all the involved parties see clearly the amount of available funds that can realistically be expected, and play a fully participatory role in deciding how those funds should be divided, the likelihood of contentment and good morale will be significantly increased.

Let's face it. We all know that there have been and are in existence excellent schools, with focussed students and enthusiastic staff, that spend far less per pupil than our current average. They have succeeded because they have been extraordinarily careful in allocating their resources. In fact, Sudbury Valley School, where I have worked since 1968 – the only school I know that includes all the clients as equal partners in the budgeting process – has actually succeeded in *lowering* its cost per student over the years relative to the cost of living and the cost of public education, and today averages less than half the per-pupil cost of public schools in its vicinity. Mightn't there be a message here for others to look at?

New Mechanisms are Needed to Help Prepare School Budgets

The main reason it is so difficult to cut the budgets of government agencies is that the people responsible for setting up the budgets in the first place are the ones asked to cut them. If there is anything that should be obvious, it is that this is no way to run a country.

Consider local government, and its greatest money-guzzler, the schools. It is the job of the administration to propose budgets, and this they do without need for encouragement. Obviously, any school administrator worth his or her salt will declare that the proposed expenditures are all essential to “quality education”, that any cuts will adversely affect the future of our youth, etc. etc. I don't think there is anything strange or wrong about this: after all, most of these educators are hard-working, sincere people who do the best they can to provide good schools, according to their understanding of what education is all about. When they ask for money for any particular set of programs or personnel, they are honest in thinking that their requests are modest, fair, and without “fat”.

However, it should be equally clear that the only way we will ever solve the really serious budget crisis faced by the schools is *to re-examine the underlying premises for all the programs and outlays being proposed*. Cosmetic patching-up cannot do the job, nor can manipulation of the physical plant. It isn't the cost of buildings that is at the heart of the problem – although to be sure any wasted expenses on physical plants should be eliminated – nor is it this or that little extra program. The heart of the problem lies deep in the present structure of the schools, which seems to demand regular large increases in outlays without any sign of concomitant improvement in the product. And the only way to attack the real problem is to subject the underlying principles to serious scrutiny and criticism, *something that cannot be done by the people who are presently operating under these principles*.

What is needed desperately is an officially sanctioned Review Body to go over in minute detail all the assumptions behind the outlays being made in schools – all of them, without exception – and how these assumptions are translated into expenditures. The members of this review body should be a mixture of plain citizens with common sense, and people known for their innovative ideas in education; and they should work closely with the current administration, teachers, parents and students. They should be given the resources and the mandate to probe deeply into every aspect of local schooling, and they should be willing to commit the time and energy needed for a thorough study.

I cannot sufficiently stress that I am *not* proposing the creation of yet another so-called “blue-ribbon panel” of big

names and lofty dignitaries, who barely have time to skim the results of superficial reports prepared by a hassled staff working to meet some preposterous deadline. It is hardly a surprise that the suggestions made by dozens of these august panels have hardly ever been implemented; nor is it particularly amazing that the kinds of remedies these panels usually propose are weak, lack a broad base of support, and usually end up giving aid and comfort to the agencies they are supposedly critiquing.

Instead, I think the time is ripe for something quite different – namely, an in-depth reconsideration of all our old, shopworn premises that have led us into financial and conceptual bankruptcy on the local, state, and federal levels; a re-evaluation done by “average” citizens (like you and me) and by people known to have new perspectives on old problems.

The “establishment” – for example, the School Committee and administration of each and every town – should welcome this proposal, and by welcoming it *join in its implementation*, lending full support to the Review Body's work. For it is an old maxim of effective political action that if you want to influence changes that are inevitable, you must become part of the process that is bringing about those changes. (It is this time-honored principle that is driving the Communist parties of Eastern Europe to rush helter-skelter into the heart of the reform process sweeping that region.)

Every town – maybe even a group of towns – should create such a set of Review Bodies for schools and for other organs of government (such as social welfare, public safety, environmental protection, etc.), thus sharing the burden for

the work and benefiting together from its results. If the idea proved its value, it is not hard to see that it would be implemented on state and federal levels as well. But, like every meaningful reform, action must start at the grass-roots town level, where the citizenry is closest to the problem and has the greatest direct stake in its successful resolution.

Time is running out on us. It is a mistake to ascribe our problems to any single factor. The real problem is that the institutions of government as presently constituted are clearly obsolete. Soaring costs and diminishing returns prove it, just as they proved it for the manufacturing industries in this country at the end of World War II. We have to get back to fundamentals if we are to extricate ourselves from our obsolescence and build for a viable future.

Recycling Gets Schools Good Stuff Cheap

A lot of effort has been expended in recent years to recycle waste. Plants have been built, organizations have been created, programs have been developed, with the aim of taking the huge amounts of debris generated by our culture and somehow converting it into useful products. The effort has been noble and praiseworthy. Unfortunately, it has been almost entirely unsuccessful to date.

I wonder why we have not, as a society, put comparable energy into recycling *useful* goods no longer needed by their original owners. The only product for which this is done in a big way is automobiles. Thousands of used car dealerships exist throughout the country, and form an integral part of our transportation system. People do not hesitate to sell or trade in their used cars, and no shame attaches to buying or driving one. As a result, millions of people who otherwise could not afford “wheels” end up enjoying the same basic mobility as do wealthy people. In a very real sense, used cars – though the butt of many jokes – are great equalizers in our social structure.

One area that could benefit hugely from recycling usable goods is our school system. Educators are forever complaining about a lack of funds, especially for adequate teaching materials. The cost of these materials is exorbitant; indeed, it is often scandalous. The “education-industrial complex” seems determined to charge tax-based school systems (and everyone else who comes along) far more than the price of comparable goods on the domestic market. Usually they blame “higher quality” for the difference, but the fact is that they get what the traffic can bear, and it is all but impossible to find any of these products for sale at a serious discount.

School Administrators unite! Cast off the bonds tying you to the purveyors of new materials! There's a world of used goods out there begging to be had. Take, for example, library books. I know a small private school with virtually no library budget at all that has built a beautiful collection of over 15,000 volumes almost entirely with books donated by parents or given away by town libraries. All they had to do was *ask*. If anything, their problem was how to *limit* their acquisitions! Their library is beautifully stocked with all sorts of books – art books, novels, science books, history, every subject conceivable.

Even more striking is the magnificent science laboratory equipment available from colleges, universities and industrial laboratories. Researchers, starting new projects, frequently discard rooms-full of perfectly usable goods to make way for different or more modern systems. The discards are *real*, not educational copies for classroom use; they are *modern*, not twenty years behind; and they are *free*, not expensive educa-

tional rip-offs.

In virtually every area – computers, electronics, shop, office supplies, art – there is first class used equipment available out there, waiting to be found. Private industry loves to participate in such recycling: it gets publicity as a virtuous donor and it gets rid of surpluses or excesses that it no longer needs, but someone else can use.

When I was growing up, the saying used to be, “Don't look a gift horse in the mouth.” Somehow, over the years, especially in tax-supported institutions like schools, the saying has become, “Don't look for a gift horse; buy a new one.” Isn't it time to go back to the old version?

Private School Tax Rebates are Not Good Public Policy

Tax relief for parents sending their children to private schools is a matter of bitter controversy. As so often happens, by the time the dust settles, almost everyone has lost sight of the fundamental issues involved.

Let's go "back to basics." What are publicly-levied taxes used for? The answer is simple: they go to pay for expenditures that our democratically elected representatives have determined to be *in the public interest*. It is not necessary that every citizen benefit individually from every public expenditure; the criterion used by our legislative bodies is broader – namely, that the *general welfare* be served by the expenditure.

So, for example, our taxes pay for roads, whether or not each of us has cars, because roads are perceived to be of value to the community at large. Our taxes pay for the fire department, whether or not we have, as individuals, had fires in our homes. And, in a similar vein, our taxes pay for public schools, whether or not we have children attending them, because in this country – and to our resounding glory – it has long been accepted that free education of our youth is a

critically important public goal that benefits our entire society. Anyone who looks objectively at what this country has achieved in the last hundred years must agree that public education, taken as a whole, has been one of the most ingenious inventions ever devised by American ingenuity.

Now, suppose you want a private road built for your own special use – or even, perhaps, for the use of a few of your friends and neighbors too. There is no way this has anything to do with the amount of tax you pay to support the public roads deemed necessary for the community at large. You cannot go to the town or county or state government and say, “Give me a tax rebate on the road-building portion of my tax bill, since I have spent money on a private road.” You cannot argue, “I am being penalized for building a private road; I am being taxed twice, once for the public roads and once for my private road, and this is unfair.” Such an argument would be laughable, and you probably wouldn’t even be able to make it with a straight face. The simple fact is that, in this country, you can do what you want with your own money – build roads, buy your own fire engine, bury your own trash, construct your own private hospital – but this has nothing to do with your obligations as a citizen in a democracy to pay your share of expenses for projects that your freely elected government considers to be necessary for the public good. And you cannot come and demand that the government release you from your public levies because you have chosen to set up or participate in private organizations that duplicate some public services.

All this is about as basic as you can get in the theory of

public taxation. No community could exist as a stable entity if each citizen decided on their own what service they feel like using or paying for.

So let's not get sand thrown in our eyes on the school tuition issue. There is no issue. All citizens are free to send their children to public schools. *In addition, any and every person is free to lobby their local School Committees to set up all sorts of alternative public schools to accommodate a wide variety of legitimate educational theories.* But if you want to take your own particular educational path and send your children to a private school, you cannot ask the public to foot the bill. Or, if you do, then you cannot complain about any other person or special interest group who dip into the public till for private benefit.

Private Schools Should be Wary of Tuition Tax Credits

A lot of private schools are pushing hard for legislation that would give some form of tuition tax break to parents who enroll their children in private schools. Their enthusiasm is a classic case of shortsightedness, where long-term interest is sacrificed for short-term gain.

All that private schools see in a tax-break bill is the prospect of an immediate gain in enrollment and, consequently, some quick financial relief in the form of increased tuition income. A tuition rebate offered by the government, in whatever form, appears little different than a publicly funded financial aid program for private schools, which makes private school education easily accessible to a much greater population.

How often have educators been lured into the same seductive trap! The first thing to suffer is the *independence* of independent private schools. As soon as government gets involved in an enterprise, it seeks ways to insinuate its power and influence into the operation of that enterprise. How well I remember the debates that raged throughout the country's

academic institutions when the Kennedy and Johnson administrations proposed large-scale Federal assistance to education at all levels. When the programs were in the planning stage, everyone supporting them piously insisted that this aid would come without any strings attached, a pure gift for local educators to do with as they wish. It took very little time before Federal aid to schools became the back-door through which literally thousands of different Federal regulations were made to apply to every nook and cranny of the educational enterprise. The fact is, if the government is providing public support, either directly or indirectly, then it has the legal (and probably moral) right to demand adherence to the full range of public policies currently in vogue.

But independent schools will find more than their freedom of action impaired as time goes on. More significant is the potential threat to their very existence. You see, public school authorities are enormously resourceful people, and they do not sit around idly while outside forces threaten their existence. It has happened before, and it will happen again: when the public schools sense competition that can do them real harm, they plunge right into the marketplace and do whatever is necessary to regain their clientele.

The most recent example of this is the so-called "alternative school movement" that swept the country in the late 1960's and early 1970's. In thousands of communities, private schools were set up to provide styles of education that differed substantially from the prevailing public school styles. In many towns and cities, these new schools made serious inroads into the public school enrollment, and threatened to

undermine the stability of the public educational system. It took only a few years for public school authorities to set up their own alternative schools within the *public school systems*! These public alternative schools were, of course, free of charge, and often offered, or appeared to offer, highly imaginative programs. Before long, the overwhelming majority of private alternative schools closed their doors due to lack of enrollment, having lost their clientele to the enterprising public sector.

The wisest course for private schools to take is to steer clear of public funding, in whatever form it is packaged. Otherwise, as Little Red Riding Hood found out a bit too late, the wolf could gobble them up, and there just might not be a friendly woodsman handy to bail them out.

A System of Local Outright Grants Can Go Far to Break the Public School Budget Bind

Much is being written about the plight of our schools, about the danger of loss of accreditation, about irreparable damage to our future generations, and so forth, because of the stark fiscal reality facing us these days. The money gusher has run dry, the tax-paying public has anted up all it can or wants to, and our public institutions – the schools foremost amongst them – are promising us doom and destruction because we are so stingy, so shortsighted.

The question is, what are we to do?

Before I make my simple proposal, let me try to explain why things have reached such an impasse, and look so hopeless. It's really quite simple. Over the past thirty years or so, educationists all over our country have discovered that our nation's chronic inferiority complex can be exploited to extract huge sums of money from the citizenry. The trouble started right after the Russians orbited their first satellite, leading to anguished cries that our educational and economic systems were rapidly falling behind theirs. As always,

money was to be the solution, and money started pouring out of Washington, the various State governments, and the various counties, cities, and towns. Of course, today we know that the Soviet Union not only was far from pulling ahead of us, it was actually falling behind us, and has continued to fall behind at an accelerating clip for the past several decades. But no matter. The myth served its purpose of opening the money faucets, which was all that mattered.

As time passed, even the densest observers caught on that Russia was not exactly the bugaboo it had been made out to be. A new external threat had to be created – and who better than our former enemies, the Germans and the Japanese, both now depicted as supergiants of economic perfection, of intellectual achievement, of scientific and technological wizardry, of social order, etc.? We had never really made peace with the historic fact that these countries had been brash enough to declare war on us in the early 40s, a sure sign that they must have something on us. So now we worry about the threat from Germany and Japan, and we fight it by pouring even more money into our schools.

It should be obvious by now that the world sees us quite differently than we see ourselves. It should be obvious – but somehow it isn't, again because we have been so unsure of ourselves ever since our forebears came over here and tried to establish a new kind of society. Today, people from every country flood to our cultural and academic centers, invest in our old and new companies, buy our promissory notes, use our currency as the international standard and our language as the international means of communication. Today, we are

a beacon of freedom and opportunity to every oppressed nation, as the recent upheavals in all the Communist countries has shown.

OK, so how do we break out of our bind in the schools? Obviously, the people running them today cannot see their way to the basic reforms needed; people who are accustomed to a certain *modus operandi* cannot suddenly turn around and change it overnight, after having been committed to it for so many years. What we need is something really new, the kind of innovation that only the great free market of ideas can create.

So here's a simple proposal. It costs on the average over \$5000 per pupil to run the public schools for students not in Special Ed or Vocational Ed. Ideally, we could shut down all our regular educational programs – close them all – and offer every child an outright grant of \$4000 to get an education at the place of their choice. But we can't quite do this; shutting down our schools overnight would be seen as too radical, too outrageous. So we go halfway. We offer parents the option of taking up to \$4000 next year to take their child out of the public school and give him/her any education they please. No need to monitor their performance – after all, no one is more concerned than the parents and the children about getting the best preparation they can for the future. Who is more likely to be careful and conscientious about choosing a good educational program – the people directly involved, or some bureaucrat hired to “accredit” various programs? Forget about the bureaucracy; just make outright grants of \$4000 per child.

You know what will happen? I'll tell you. Some children will take the money and go to existing private schools, using the grant to pay all or part of the tuition. Others will go to neighboring towns' public schools and use the money to buy themselves in (at least until all the neighboring towns catch on and do the same). But the vast majority will realize that this grant finally makes it possible for them to design the school of their dreams, and they will get together in groups of parents and teachers and former teachers, and design a whole new spectrum of schools, each with its own character and special emphasis, each quite happy to settle for the \$4000 tuition. Believe me, they will have no trouble doing this, by means of all sorts of miracles that some of us in education have long ago learned are quite possible in the real world, given the freedom and incentive to bring them about.

There is no need to leave out other students as well. Enlarge the size of the grants for them, but give them the same options. You wouldn't believe how quickly they would leap to take advantage of their new freedom, and create whole new worlds of opportunity for themselves.

The idea of a free market of educational choice is not new, and it is gaining momentum every year. Our present system has clearly reached a point of collapse. Nothing is keeping any city or town from beginning to offer such grants right away. If designed properly, and if given directly to the families rather than the schools, I cannot imagine there being any legal barrier to starting right away. Or let me put it this way: if there seem to be legal barriers, I am sure that there are clever lawyers who can work their way around them.

What do you say? Isn't it worth a try? What can we lose? The professionals will say that this will lead to a flourishing of charlatans, and a general degradation of education. But all that means, in plain English, is that these professionals don't trust the average person to do his or her homework, and differentiate the good from the bad. Isn't that nonsense? We're smart enough to choose our own doctors, our own lawyers, our own food, shelter, entertainment, clothing, books, magazines, newspapers – our own *thoughts*. Surely we're smart enough to choose our children's schools!

PART IV

Other Basic Issues

The Bill of Rights Should Protect Children as Well as Adults

Much of the commentary on a recent Supreme Court decision about faculty editing of high school newspapers has, unfortunately, been widely off the mark. Most attention has been focussed on issues of free speech, First Amendment rights, censorship, and the like, but the real underlying issue, the important one, seems to have slipped by almost unnoticed.

Let's dispose of the editorial matter first. This is actually not as complicated as it appears to be. Consider, for example, *The Middlesex News*. Nowhere in the Constitution is every citizen of Metro West (or anywhere else for that matter) guaranteed the right to publish anything they want in *The Middlesex News*. That is obvious, and almost too silly to remark upon. By the same token, the Constitution does not afford us all the right to print whatever we wish in our local college newspaper, in the Town Meeting Warrant, in periodicals published by the Commonwealth of Massachusetts, or anywhere else. The point is that if someone sets up a publication, sponsors it, and distributes it, there has always been widespread

acknowledgement of the fact that the same person can edit and control the contents of that publication. We all know that. So what's the big deal?

The question really is, what does the First Amendment actually guarantee? What does free speech and free press really mean? The answer is: citizens of the United States enjoy the right to say and print whatever they please in public, subject only to certain restrictions that relate to libel, slander, or endangerment of the personal safety of others (screaming “fire” in a crowded theater, for example). In other words, I don't have a constitutional right to print whatever I want in *your* newspaper, but I do have a right to print whatever I want in *my* newspaper, or flyer, and distribute it publicly.

This is where the Supreme Court's recent decision, and others that preceded it, raise serious problems: for the Court has again repeated its oft-averred contention that children below the age of majority, as a group, are not protected *prima facie* by the various grants of rights of our Constitution. In other words, all the wonderful high-sounding principles espoused in the Bill of Rights and in hosts of wonderful court decisions, Constitutional Amendments, and learned authoritative writings do not apply to children below the age of 18. In a very real sense, the youth of this country are in a strange legal limbo – part slave, part free; part fully statused person, part non-person – that leaves them ever at the mercy of arbitrary authority at home, at school, in the country, and in the courts. How hollow have all those great civics and history lessons sounded this past year in schools, when the 200th anniversary of the Constitution was celebrated in

classroom after classroom, to a captive audience of students to whom much of that very Constitution does not apply!

Every deprived minority or group has had in recent years advocates for equal treatment and full rights. This Supreme Court decision once more raises an age-old question: isn't it time for someone with power, status, money, and a big heart, to become a steady advocate of fully equal rights for children?

The Message From School Dropouts

Not long ago a bill was introduced into the State Legislature calling for the suspension of driving privileges for all youngsters under the age of 18 who have dropped out of high school. The sponsor commented that the bill “goes along with the idea that education is really important and the state has a legitimate interest in that fact.”

The general implications of this idea are staggering, and frightening. Apparently, we are supposed to accept the idea that the state has a right to use its power to push private citizens into doing whatever a majority of the legislature considers “really important” at any time. The opportunities this concept opens up are limitless. Is it “really important” to conserve energy? If so, the state could suspend the driving license of any homeowner whose dwelling doesn't conform to the latest standards in insulation and efficiency. Is it “really important” to recycle trash? Suspend the license of anyone who doesn't have proof they visit a recycling center regularly. And why bother to limit the sanction of suspension of licenses? Why not introduce a spectrum of privileges that can be withdrawn? Why not spice the pot with some delicate punishments as well?

It doesn't take much figuring to realize that the bill's approach is a travesty on the American system, which has from the outset been dedicated to the fundamental rights of every citizen to be free of coercive pressure from the state, even when – or, I should say, *especially when* – the appointed rulers deem some action to be “really important.” We require much more justification for state intervention in private affairs. I would imagine that the sponsor, as a Republican, would be especially sensitive to this point.

The problem nevertheless remains: what, if anything, should be done about the high rate of school dropout? Unfortunately, a hard look at this question yields some disturbing thoughts. The first inclination most people have, whether in education or in legislatures, is to blame the children for dropping out. That is the supposition underlying attempts to force them back through pressure. We are in effect saying to the dropouts that they are purposely behaving perversely, contrary to their own and society's interest, by leaving high school before attaining a diploma.

Now I, for one, do not believe this is what is happening. Most normal people do not purposely act against their own best interest, or against the best interest of society, especially where the two coincide. It just doesn't make sense. Moral philosophers, as well as laymen, know this to be true. The only rational conclusion we can draw from the dropout situation is that students *who drop out of school do not perceive it to be in their best interest to remain in school*.

The real question is: why? Why are youngsters in ever-growing numbers failing to regard formal schooling as essen-

tial, or even merely beneficial, to their own futures? And this, in an age where everyone knows that life is getting more complicated than ever before.

We can only conclude from the evidence at hand that for many young people, schools as they are presently constituted do not have educational programs that have a convincing value to their client population. It is the schools that are flawed, not the students. It is one of the most elementary tenets of social economics that a producer whose products are no longer sought by the market population has outlived its usefulness, and must undergo radical change in order to survive.

Our schools are increasingly becoming such an obsolete producer. All the symptoms are there. Clients (that is, students) drop out, performance decreases (or at best remains constant, despite huge increases in efforts to improve it), and all the while huge sums of money are poured in, and even greater sums are requested, in an almost hysterical attempt to hold back the tide of failure.

We can, of course, try to use legislation as a last resort. We already all but imprison our children in school by requiring them to attend a certain number of hours for a certain number of days and years. We can up the ante, introduce severer measures, punish people for poor performance, etc. etc. But down deep we all know that coercion never really works over the long haul, even if our political ideology permitted it, which it doesn't.

The solution to the dropout problem, and the many other serious difficulties facing schools today, is to give close

attention to some alternatives to the present way they do things. Many educational alternatives exist as models, right here and now; many others would emerge quite rapidly if people were given any encouragement to experiment with new ideas. We need to open our minds and our hearts to a whole new way of thinking about education. That is the simplest remedy, and the one that always seems to work best in a free society.

“Special Education” – a Noble Cause Sacrificed to Standardization

The increasing homogenization of our schools is without doubt the chief underlying cause of their skyrocketing costs. Here I would like to focus on the costliest, and most damaging, effect of standardization: the astronomical rise in the number of “special needs” students over the past decade.

Some perspective is needed in dealing with this ultra-sensitive subject. For the longest time, the regular schools did not handle children who had organic disabilities that severely impaired their physical and/or mental functioning. These children became pariahs; they were relegated mostly to horrible institutions which kept them out of the public eye and left them unequipped to deal with life at virtually any level. It was a mark of great enlightenment for our culture when we collectively decided to *include*, rather than exclude, these children as part of our society. The citizens of this country chose willingly to go to the trouble and expense of providing a place for such children within the educational system, and made every effort to give them as productive a life as possible.

Simply put, that was how “special needs” education

began, and few people begrudged the extra cost of caring for these unfortunate people who were our fellow brothers and sisters. The criteria for accepting children into these programs were fairly well defined in terms of measurable dysfunctions, based on observable physiological data – neurological responses, neuromotor functions, neuropsychological reactions, kinesthetic behavior, etc. Most of the diagnoses could be related to biological disorders that were observable under the microscope.

Then, with astonishing rapidity, something terrible happened to this well-conceived, well-intentioned system of “special needs education”: *it became a tool in the hands of an educational system bent on standardization.* Within a few years, teachers and counselors and school psychologists and, ultimately, anxious parents driven to distraction by the demands of the schools, all banded together to make “special ed” the repository for all children who did not fit neatly into the standard mold. Children who in earlier years would have been readily integrated into the classroom – children who were more active than others, or less attentive, or more interested in other things rather than their current lessons, or who had unusual talents and leanings, or who learned different subjects at different rates – all these were now driven out of the standard classroom, into special needs classes. In the relentless pursuit of sameness, the marvelous variety of the classrooms of yesteryear was abolished, for the overriding purpose of achieving a classroom free of distractions, containing only “good” children who were obedient, calm, attentive, did their homework, and above all achieved good grades on battery

after battery of standard tests, which increase in number and scope every year.

To achieve this homogenization of the classroom, all the non-standard kids had to be “diagnosed” as having some illness, that justified the expense of special ed. And so, in the past decade or two, a host of new so-called disorders has arisen – attention deficit disorder, hyperactivity disorder, reading disorders, cognitive disorders, and many others – none of which have been, or can be, traced to any physiological dysfunction whatsoever. These pseudo-scientific diagnoses have caused a whole generation of non-standard children to be labelled as dysfunctional, even though they suffer from nothing more than the disease of responding differently in the classroom than the average manageable student. When this process of labelling and separation is applied to adults – as it was for several generations in the Soviet Union – there is a general hue and cry denouncing such action as a malicious suppression of freedom and individual variation. Alas, when the same process is being applied daily to more and more children in our own land of the free and home of the brave, hardly a voice is raised in protest, and those few who object are berated for attacking the schools!

The abolition of lock-step standardization in schools, from the earliest pre-school onward, could eliminate virtually overnight most of the crippling costs of special education, that threaten to entwine us in a never-ending upward spiral of demands for funds. All that would and should remain is “special ed” as originally conceived, providing diligently for children with real physiologically identifiable disabilities.

As I have said over and over, what we are seeing in our schools is the desperate behavior of educators who are seeking to keep an obsolete and irrelevant system running. The current schools are beset by failure and, as governments and bureaucracies always do, they react by falling back with ever more vigor on the old formulas that have failed. They become more restrictive, more cumbersome, more expensive, more prone to rhetoric and flag-waving. Meanwhile, life is passing them by, and they will either change on their own, or history will force them to change willy-nilly.

Who can doubt this? Most of the Communist world cast off its rigid homogenization in a few months. Leading Japanese educators are grappling with abandoning their fearfully confining school system, which has produced so very little by way of original thought or independent behavior. How long will it be before the United States, cradle of liberty, defender of freedom, mother of creative endeavor, casts off the shackles of its rigidly standardized schools and opens its educational system at last to the creative influences of variety, difference, and change?

“Special Education” – A Noble Cause Run Amok

I

Perhaps the biggest barrier to controlling the costs of public schooling is the escalating expense of what is blandly called “special education”. Year after year, cities and towns are confronted with increased demands for funds for special ed programs, both because of pressure to spend more on staff and because of growing numbers of children admitted to these programs. Since the law mandates that the needs of special ed be met by local authorities (with whatever aid the state chooses to bestow, and that is done somewhat erratically these days), school committees find themselves unable to control the situation, to their intense frustration. I will attempt to analyze the factors underlying the special ed dilemma, and to propose ways in which the runaway costs can be reined in.

An important factor underlying the dramatic increase in the numbers of “Learning Disabled” children is our culture's preoccupation with the medical model of problem-solving.

Simply put, here is what this means. For about 150 years, modern Western medicine has been producing a seemingly unending series of spectacular successes. The process, based on the application of “scientific method”, involves identifying a disease with precision; finding a universal cause for the disease; and creating a cure. So well has this process seemed to work in making Western populations healthier, that the model is assumed to be applicable to other areas as well.

This is not the place to discuss whether the model is valid even in medicine, or whether it works in such areas as social or political problem-solving, where it has been widely used. But it is worth noting the effect the model has had on education, to which it has been assiduously applied for over thirty years. Schools are viewed as “sick,” as plagued with “ills” that must be “cured”. Periodically, and with great frequency, educators announce new “remedies” that they have found for specific pathologies in the education process. These remedies are supposed to work like antibiotics against bacterial infection: they are to be applied in a prescribed manner until the ill goes away. The fact that virtually every remedy that has ever been announced for schools has not worked, despite the willingness of the public to pay for them every time, does not faze the “doctors” of education: after all, medicine too has had its share of false starts and unsuccessful panaceas, and that has not shaken the faith of the public in doctors, has it?

The field of special ed is particularly noted for the application of the medical model to individual children who are pupils in the school system. Schools find themselves defining

with increasing narrowness and precision what a “normal” or “healthy” child should be like, and “diagnosing” every departure from this norm as some sort of “disorder”. In line with medicine's preoccupation with regular checkups for everyone, even for people who feel perfectly fine, the schools develop ever more sophisticated general tests for all pupils of all ages. These tests are used to bring to light alleged learning disabilities, as are the observations and reports of teachers and counselors, who – though not trained at all in the way medical doctors are trained – become diagnosticians in the education field. So dominant has the medical model become in schools, that children who are labelled as LD are by now generally considered to suffer from a real organic disorder in brain function, even though the evidence is *universal* that only a tiny fraction of children labelled as LD can be demonstrated to be actually suffering from a neurological or physiological disorder that can be identified by accepted medical means. Anyone who doubts this should read the superb and thorough study written in 1987 by Gerald Coles entitled “The Learning Mystique”, published by Ballantine Books. The validity of his conclusions has not been affected by any studies that have appeared since the date of publication.

The medical model is simple, and therein lies its appeal. It makes simple statements, and points to simple remedies. But it just hasn't worked in the schools, and it never will, *because it doesn't apply*. Schools are not hospitals, and the sooner we break away from the analogy the more quickly we will put special education into its proper perspective.

The second major factor affecting special ed expendi-

tures is legislative in origin. State laws that were passed with the best of intentions have a built-in feature almost guaranteed to produce escalating costs. Communities are *required by statute* to pay the expenses involved in providing programs for special needs children. We can easily understand the motivation behind this requirement: the legislature was concerned that local citizens, faced with varied demands on limited funds, would short-change children with serious disabilities in favor of the vast majority of children who do not need special attention. Well-meaning lawmakers – and, basically, aren't they all well-meaning, aren't they all trying somehow to do what they think is best? – sought to protect disabled children from the predations of the local citizenry by taking the matter out of the hands of the lay community, and forcing the community to ante up whatever funds the special ed experts demand for adequate programs.

Now, even the best of us are sorely tempted when a pot of gold is placed before us *and we are invited to help ourselves*. Imagine the inner conflict faced by professional educators, because of the way the law is framed. In an era when funds for schools are ever more difficult to come by, professionals are faced with the reality that the only sure-fire way to get more money is to increase the costs of special ed programs. This can be done either by making the programs more elaborate, or by increasing the number of students entering the programs, or both. Not even the angels of heaven could turn down such an opportunity, freely offered! It is no wonder, then, that special ed costs have risen steeply, and there is no way the rises will ever be stopped until the law is modified

and/or serious restraints are imposed on the freedom of educators to write their own checks in this field.

II

The basic premise under which public school systems operate is that each classroom should contain children of a particular age who are performing at levels deemed appropriate for that age, and exhibiting behavior that is supportive of the teacher's activities. To achieve these ideal conditions, schools periodically test children, from the earliest ages on, to identify children who are not functioning in a way that is the supposed norm for that age; and teachers regularly single out children whose behavior does not satisfy them – children whose attention wanders from classroom work, who disrupt the class's peaceful calm by talking or moving about, or who exhibit hostility to the teacher or to school work in general.

Once children are identified as being outside the norm, it is all but impossible to return them to the mainstream. Almost at once, teams of school personnel – psychologists, testing specialists, nurses, physicians, social workers, guidance counselors, special ed teachers – are assembled to take over control of the child's educational future. The views of the parents, of other lay people, or of the children themselves are considered to have little or no value – indeed, to be counter-productive, much as these views are ignored by physicians when diagnosing and treating patients. There is an impressive array of official agencies lined up behind the schools' efforts, ready to use the full

power of government to ensure that the programs of the special ed teams are carried out.

All this activity is self-reinforcing. The financial incentive makes it profitable for the schools to keep children in special ed programs as long as possible. Professional pride discourages special ed teams from admitting the limitations of their procedures, or the errors in their work. There are no outside controls or critiques that can operate effectively to limit the almost absolute power wielded by the specialists.

Unfortunately, there are a number of fatal flaws in the whole procedure. For example:

- There are no serious grounds for believing that children have “normal” universal patterns of development. The work of developmental psychologists who are usually cited in support of this view is poorly supported, has been heavily criticized by other colleagues in the field, and flies in the face of the overwhelming body of experience, which points to *variation* rather than similarity as the rule in child development.

- Even those who believe there is a developmental norm know that there is no way to design standardized tests to measure children's performance against the norm. Existing tests are based on speculative hypotheses, and come under constant criticism even from within the testing community. Indeed the most widespread of these, such as the SAT's and the vaunted IQ tests, are well known to *measure student's performance on these tests*, rather than measuring “intelligence” or “aptitude” as their names imply. But the tests keep on being used nonetheless.

– The use of classroom teachers as sources of referral to special ed evaluation, based on the teachers' disapproval of a child's classroom behavior, is a blatant violation of children's rights and due process. A corresponding situation for adults would never be tolerated in a civilized society. Indeed, one of the most widely acknowledged outrages of Bolshevik governments – condemned even by leftists who were otherwise sympathetic to those regimes – was the widespread use of mental institutions (“special needs” centers for adults) as places to which “misbehaving” adults could be sent without legal procedure, by authorities who didn't approve of their behavior.

What can be done, here and now, to improve the situation? A great deal. Without further legislation or new programs, school committees can begin immediately to turn the tide. They can insist on a redefinition of learning disability based on demonstrable, hard medical evidence of neurological dysfunction, and *nothing else* – evidence produced by specialists, and applied to children with the same rigor as it is applied to adults. Also, school committees can severely limit the use of standardized tests in their systems. Most important, school committees can insist that school programs be designed once again, as they were for over 200 years, to accommodate comfortably a wide range of interests, rates of progress, and behavior, all of which would be considered quite normal.

Such actions would not jeopardize the necessary therapeutic programs required for a tiny number of children who are, in accepted medical terms, really disabled. But all the rest – and that is where the bulk of the money goes – would drop

away within a few years, as existing programs are phased out. Not only would the financial benefits to society be enormous, but, more importantly, the social benefits would be incalculable, as hordes of children who have been labelled LD and have faced life with miserably low self-esteem would be able to find their rightful places in society as productive members of a variegated community.

A Longer School Year Won't Cure What's Ailing American Schools

If ever there was an example of throwing good money after bad, it's the currently fashionable idea that the school year ought to be lengthened into the summer. Just about everyone seems to agree that our educational system is in deep trouble, and that the vast majority of schools aren't doing the job we want them to do. The latest proposal for keeping kids in school more days each year says, in effect, "Let's spend even more time doing the wrong things with our kids"!

It's strange to see where this notion came from. Basically, several reports have appeared allegedly demonstrating that children in this country are more poorly educated than children in other technologically advanced countries – especially Japan. In addition, arguments are made that these other countries are leaving America in the dust in the competition for productive economic output. The conclusion the critics reach is that we in this country ought to copy the schooling of these other countries, and that would bring us up to snuff on the world scene.

Let's assume, just for now, that America is indeed falling

behind the rest of the industrialized world economically. Why blame it on the schools? There are so many other factors at work here; why not choose something else?

For example, some time ago it was “discovered” that the industrial supremacy of the Western World was a result of the Protestant Ethic. This historical theory has gained much support, and is still commonly taught. Perhaps it's time to ask ourselves whether Japan's Shintoism isn't a more productive religion than Protestantism – and to advocate mass conversion in this country away from Christianity. The religious solution to socio-economic problems was, after all, commonplace in the ancient world.

Or consider the relations between labor and management in Japan. We have all read a great deal about the Japanese method of management: how they create a feeling of “family” in their companies; how difficult it is for a worker to change jobs; how the company feels it has an obligation to the worker, and the worker feels a deep personal loyalty to the company; etc. Perhaps we should focus our energy on that approach. Maybe we should repeal the huge battery of laws regarding labor-management relations in this country, and create instead a system of paternalistic company employment. We could go back to the wonderful era of Company Towns and Company Stores and Company everything else. Perhaps then we could catch up with the Japanese.

Maybe it's our system of government that's wrong. Maybe we need an Emperor as a spiritual symbol to guide us. Or perhaps, like Germany, we should instill a deep respect for, and fear of, authority in the population, so that everyone

would be more disciplined, more ready to follow instructions, than in our rough-and-tumble country.

Why pick on the children? Why pick on the schools? Why pick on the only time of year – summer – when school-children are given the time and space to use their initiative, their intelligence, their creativity, without interference from teachers and tests?

A moment's thought is enough to realize that all my suggestions were written with tongue in cheek, and obviously don't make sense. Of course it isn't a solution to our problems to convert to a new religion, or adopt a new social structure, or look for a radically different form of government. None of these factors are cure-alls, none of them make sense in the context of the American experience, now about four centuries old. Nor does it make any sense to simply copy other countries by making our school year as long as theirs. If something is wrong with our schools – as indeed there is – we have to look hard and deep inside our system, re-examine the fundamental principles on which American schools have been based, and see whether some real changes might not be in order. The last thing we should do is simply add more of the same ingredients to the wrong recipe.

A FINAL WORD

The Passing of an Era

The dominant educational system in this country is in its final death throes. It is showing all the symptoms one would expect from a moribund institution on the verge of its final exit from the world scene. As in every case of terminal illness, we are witnessing a rapid progression of ever-more-frenetic and increasingly complex and costly cures being applied, even as the patient continues to decline.

Let's take a hard look at some of the unpleasant facts, as garnered from the U.S. Government's *Statistical Abstract of the United States, 1991* and from various State Education Department reports; and let's place these facts in the context of the rising chorus of complaints from educators about the need for more funds, more materials, more teachers, more facilities, more tests, and an overall higher priority than currently being given to education, in order to meet what everybody acknowledges to be a major crisis in the whole system.

— In 1960, there were a total of 1,355,000 *classroom teachers* for 36,700,000 pupils nationwide, or an average of one teacher for 27 pupils. The corresponding figures for 1975

were 2,171,000 teachers for 44,800,000 pupils, or one teacher for every 20.5 pupils. In 1989, there were 2,324,000 teachers for 40,600,000 pupils, or one teacher for every 17.5 pupils. Thus, in the thirty years from 1960 to 1989, there has been a huge increase in the teacher:pupil ratio, from 1:27 to 1:17.5 – an increase of some 54%.

- In 1975, the average salary for a classroom teacher was \$11,500. This rose to \$15,900 by 1980, an increase of 38% during the Carter Administration. By 1990, the average salary had risen to \$31,300, an increase of 97% for the Reagan-Bush decade.

- For comparison's sake, the average salary of school superintendents went from \$30,300 in 1975 to \$39,300 in 1980, an increase of 30%, and then to \$75,400 in 1990, an increase of 92%. Other administrative salaries had comparable rises.

- Also noteworthy is the rise in average starting salaries for teachers. These went from \$8,200 in 1975 to \$10,800 in 1980, an increase of 32%, and then to \$19,400 in 1989, at increase of 80% in nine years.

- Overall personnel expenses increased by 47% from 1975 to 1980, and by 83% from 1980 to 1989. Expenses for library materials and textbooks increased by 53% from 1975 to 1980, and by another 87% from 1980 to 1989. There were major steady rises across the board in every category of expenditure on public schools, except for one – utilities!! Expenses for utilities peaked in 1982, and have *declined* by 33% from 1982 to 1989!

– Let's look at total expenditures on public schools, *corrected for inflation*. The following figures are all expressed in 1989-90 dollars, so that we are comparing apples and apples. The total amount spent in 1960 nationwide on public schools was \$67.5billion. (Remember, this is expressed in 1989-90 dollars.) The total spent in 1975 went to \$159billion, which actually *decreased* to \$157billion in 1980 (but largely due to a demographic decline in school populations; the per pupil expenditures actually rose somewhat). By 1989, the figure had risen to \$194billion, for a slightly smaller total school population than in 1980. These figures are staggering, and deserve close study.

– Finally, let's glance at the figures comparing the United States to the rest of the developed world. Supposedly, we give education less priority than other advanced countries. Yet, in 1985, the latest year for which the U.S. Government issued figures, only one country – Switzerland – outspent the United States in per-pupil expenditures, by about 11%. *Every other country* had a lower per-pupil expenditure that we did, including Japan, which spent 45% less, and Germany, which spent 32% less.

What have we gotten over the past thirty years for all the money and effort we have been putting in? Here is a sampling of the results of this national initiative (which was first launched in the Kennedy Administration):

– There has been an ever-increasing hue and cry about the inadequacy of our schools.

– There have been ever louder complaints about the unwillingness of our citizenry to take education seriously

enough, despite all the clear evidence to the contrary.

– All the measures used by the schools to display their educational results (test scores of all types) have shown a steady decline in most cases. However, during this same period of years when the schools have been complaining about lack of public support and poor student performance, this country has moved decisively to the forefront of every creative endeavor known to the human race, including most areas of technology, the arts, the sciences, literature, finance, and entrepreneurialism. And during the same period, the country as a whole has survived the ordeal of a gruelling cold war, and several hot wars, to emerge as the dominant power in the world. *Clearly, the schools and reality have been steadily going out of synch with each other.*

– There has been an enormous increase in the number of students that desperate school systems have labelled Learning Disabled, and thus stigmatized for a lifetime. For example, in Massachusetts, there were 81,300 children in special education programs out of a total of 1,203,000 students overall in 1974. This was already a very large number, constituting a little less than 7% of the school population. By 1990, there were 143,700 children in special education programs out of a total of 844,800 students overall, or 17% of the population! The absolute number of special education children has risen by 77%, while the total population has dropped by 42%. These figures are simply stunning, and alone signify a terribly sick system.

– There has been, over the past thirty years, only slight progress in the elimination of racial and sex discrimination,

despite the universal acknowledgment that these issues have been front-and-center during the whole period of time.

Perhaps the whole sad tale can be summarized in something published recently by a nationally known educational consultant, in response to a parent's desperate query about why highly intelligent people so often fail in our public schools. The respected authority cited a "fundamental issue", to wit, "a child's immature expectation of school as a place to explore with unleashed curiosity." That says it all. Here we are, on the verge of entering the 21st century, where everyone realizes that the creativity of liberated human beings will be the driving force for a virtually unlimited unleashing of human potential – and our public educational system stands firm on the notion that school is not a place to explore with unleashed curiosity. Enough said.

There is no saving this dying patient. The public educational system, as it is now constituted, will not survive, no matter how much more of the citizenry's hard-earned wages are thrown into the breach. The people of this country are even now creating many wholly new approaches to schooling, in hundreds of different settings from coast to coast, which are totally revolutionizing the way education looks in this country, cost far less to carry out successfully, and are providing a vigorous, competitive free market of innovative environments from which parents and children are able to choose without constraints.

POSTSCRIPT

The View from Sudbury Valley

Three hundred years ago, if somebody would have ventured the opinion that it is possible to create a country in which people from all walks of life, all persuasions, nationalities, and backgrounds, could live together in freedom, peace, and harmony, could live happy lives, could realize their personal dreams – a country in which people showed each other mutual respect, in which people treated each other with complete equality, and in which all decisions were made by the mutual consent of the governed, people would have considered that person a crazy utopian and would have brought all the experience of human history from the dawn of time as witness to the impossibility of such a dream. They would have said, “People just don't live that way. It doesn't work. It can't happen.”

Happily for us here today, two centuries ago our founding fathers did not treat that dream as utopian and instead found a way to make it possible to put it into practice. They did something unique in the history of the human race. They had before them the task of creating a new country, a new

form of government. And they set about this task, not by revising existing forms of government, not by starting from the models that they had around them and tinkering with them and adding a little here and a little there, but by sitting together and spending a tremendous amount of time and thought on “zero-base planning”, on creating a government from scratch, starting from no assumptions other than those that they were willing to make explicitly at the moment. We have records of their deliberations, and many writings that reveal what they thought and how they came to their conclusions. They proceeded by examining the condition of the human race, the nature of the human animal, and the social and cultural conditions of the world into which the country they were founding was going to be born.

The founders of Sudbury Valley School, beginning in 1965, did much the same thing when it came to education. We too were dissatisfied – dissatisfied with the models of schools that we had available to us at the time, and we had a deep conviction that there was more at stake than just the proper curriculum or the right pedagogical methodology or the right mix of social and emotional and psychological factors that had to be applied to the educational scene. We were convinced that the time had come for complete reexamination of what it is that a school had to be about if it were to serve as an appropriate agent of society in this country in the late 20th century and beyond the year 2000. So we spent several years working on this, trying to gain an understanding of what school is for and how the goals of schools can best be realized.

Now, it's pretty much generally agreed that there are two major roles that a school fills. One is to provide an environment in which children can grow to maturity, from a state of formativeness and dependence to a state of independence as adults who have found their unique way of personal expression in life. The second goal is social rather than individual. The school has to be the environment in which the culture prepares itself for its continuation from generation to generation. This is a goal that a community requires of its educational system if it wants its way of life to survive.

There is no guarantee that the social goal and the individual goal will mesh. In an authoritarian society, for example, where the lives of every single individual are controlled by some central authority, the social goal promulgating the authoritarian system is in clear conflict with any primacy given to the individual goals of the people in that society. One of the functions of a school in an authoritarian society must therefore be to subject the individual to severe restraints in order to force that individual to meet the needs of the society as a whole. The educational systems of highly authoritarian regimes play down individual variation and individual freedom and effectively try to eliminate them.

On the other hand, in anarchistic educational systems, the individual is focussed on, almost entirely to the exclusion of society. The individual is elevated above all else and modes of social interaction and cultural survival are given very little attention.

When we started thinking about Sudbury Valley School, we had no way of knowing whether there would be any way

of harmonizing individual needs and social needs in the United States today. We started by examining the social side, because it was clear to us that no school could possibly survive if it didn't meet the needs of modern American society. It might survive as a fringe school for some few discontented people, who perhaps wanted a different way of life in this country. But as an institution that was meaningful to the mainstream of American society, there was no hope for it to survive unless it could tie into the deep needs of American culture in this era. So we set about asking ourselves, "What is it really that the society wants today in order to flourish?"

The key to the answer to this question was the realization that the United States is fundamentally a free market economy in which personal freedom is maximized on a social level. Ours is a society which, as a community, extols personal freedoms for its individual members and has social ways of guaranteeing these freedoms through the grant of rights and redress to individuals. In addition, the United States, in 1965, was clearly entering an economic era which was a novelty on the world scene – namely, the post industrial economic era, which was beginning to be recognized as a reality. Today, of course, the image of a post industrial society is commonplace. The key concept which differentiates a post industrial economy from an industrial economy is the realization that in a post industrial society, in principle, every task that can be defined by a set routine can be taken out of human hands and put into the hands of some sort of information processing machine. The main difference between an industrial and a post industrial society lies not in the presence or

absence of produced goods, but in the means by which those goods are produced. In an industrial society it is essential to have a virtual ARMY of human beings who are fit somehow into the mechanism of the overall industrial machine, who play an integrated role in the production process as parts of the machine.

The strength of the industrial society was that by using machines, it could magnify many, many thousandfold the ability of the society to produce material benefits for its members. But the machines couldn't do this alone. The machines were not sophisticated enough to carry out this process unaided. In order to make it happen what was needed was human intervention and human help. Human and machine became as one, something that probably has never been better illustrated than in the great classic film *Modern Times* that Charlie Chaplin produced over fifty years ago.

The deal that was made by various societies, one after the other, when they chose to enter the industrial era was to agree to forfeit much of their humanity, much of their freedom as individuals, in order to benefit as a society from the wealth and prosperity that the industrial era promised. This isn't an altogether ridiculous deal by any means. It's perfectly understandable that human societies that for thousands of years had accepted as inevitable the grinding poverty and deprivation and misery of the overwhelming majority of people – it's not surprising that such societies, when faced with the promise that almost miraculously and with incredible suddenness virtually the entire population could raise its standard of living and survive in a relatively comfortable

manner, chose, one after another, to sacrifice willingly some of their personal freedoms, many of which were illusory anyway, to achieve that goal.

The post industrial era is of a different nature, however. The post industrial era asks no sacrifice of the material benefits that the industrial era provided. On the contrary, the development of sophisticated, computer-driven machines and information processing systems has promised an even greater degree of national wealth and diversity. But the demands on the individual are now completely different. In the post industrial society there is essentially no place for human beings who are not able to function independently. There is no room for people trained to be cogs in a machine. Such people have been displaced permanently from the economic system. The needs of a post industrial society, regardless of the governmental structure, are for people who can be independent, entrepreneurial producers of economic benefits. People have to take initiatives, to think for themselves, to create for themselves, to become productive for themselves. In a post industrial society, there is no longer a mass of predetermined slots into which to fit people. The economic demands of post industrial America are something that you hear from personnel directors in every industry and company today, small or large. The demands are for creative people, people with initiative, self starters, people who know how to take responsibility, exercise judgement, make decisions for themselves.

This meant to us that a school in post industrial America, in order to serve the culture, has to have the follow-

ing features: It has to allow for a tremendous amount of diversity. It has to allow for people to become, on their own, self-starters, initiators, entrepreneurs. And, at the same time, it has to allow children to grow up completely at home with the cultural values of our country, especially such essential values as tolerance, mutual respect, and self government.

We then looked at the requirements for individual realization. These too had undergone a rather interesting change of perspective through the work of psychologists and developmental theorists. The commonly accepted model of the human had been that of a *tabula rasa*, a clean slate, born as infants with basically nothing in their heads and therefore growing up to be what other people have written on that slate. That's a model that put a tremendous responsibility on the people around the child who write on that child's slate. In a sense, that model was the utter negation of the individual as an independent being, and the subjugation of the individual will to the influences of those around it who impose their wills and their intellects on it from infancy onwards.

But Aristotle, 2,000 years ago, and developmental psychologists in recent times, developed other models that seemed to us, when we were creating Sudbury Valley School, to be much more realistic and much more in line with what we saw to be the nature of the human species. These people considered children from birth as being *naturally curious*, as being active participants in the learning process – not born with blank minds but, on the contrary, born with information processing systems in their brains which *require* of them, *demand* of them, by nature, to reach out, to explore, to seek

to understand the world and make sense of it, using their sensory interactions and their agile brains to build pictures of reality – world views – in their minds that enable them to function in the world. In our view there was no such thing as a passive child. Every child is active. Every child we had ever seen, certainly in early infancy, was devoured with curiosity, was energetic, was able to overcome almost every barrier, was courageous, persistent, and constantly seeking to meet every challenge that came their way. And these are traits that we saw continuing year after year in children as long as it wasn't forced out of them by some crutching outside intervention.

So it seemed clear to us that the ideal environment for children to attain the full realization of their inherent intellectual, emotional, and spiritual potentials had to be one which, subject only to constraints imposed by safety, is totally open for exploration, free of restraints, free of external impositions; a place where each individual child would be granted the freedom to reach out everywhere and anywhere they wished so that they could follow through on all of their curious probing. This realization came upon us *like a thunder-clap*, because we saw such a beautiful fit between the needs of society today and the needs of the individual. Both society and the individual in modern post industrial America require that schools be an environment in which children are FREE, and in which children can LEARN HOW TO USE FREEDOM, how to be self governing, how to live together as free people in peace and harmony and mutual respect. Not an environment in which one group dominated, or exercised power over another. Not an environment in which the mobil-

ity of anybody was restrained. Not an environment in which children were put into any sort of externally imposed track, or forced to think about prescribed subjects. But an environment in which children and adults alike work together to guarantee free accessibility to the world, to the greatest extent possible, for each and every child. And that, in effect, is what Sudbury Valley School is about.

If you come to Sudbury Valley, the first impression you get is that of a regular school in recess. You notice children, outdoors and indoors, freely going on and off campus, freely walking about, moving from room to room, changing from group to group, talking, interacting, reading, playing. So much playing! More than anything else, the children at Sudbury Valley School, of all ages, play. The better they are at playing, the better they are at fashioning new models with which to understand the world. Play is the greatest teacher of all. Every innovative adult who has ever written about the creative process has talked about the extent to which he or she *played* with new ideas, moving freely in and out of new, original conceptions of the world without being hampered by preconceived notions of reality. The children at Sudbury Valley know how to play. They know how to take their play seriously. They know how to play with intensity and with focus.

Sudbury Valley is a community governed by itself. Every child in Sudbury Valley has a vote in every matter that pertains to the school. The school is governed by a School Meeting in which four years olds have the same vote as adults. *Every decision* in the school is made by that School

Meeting. The budget, the hiring and firing of staff, the letting of contracts. In the Sudbury Valley community, no adult wields any particular power over any child, nor does any child wield power over any other child. All decisions are made in the School Meeting or delegated by the School Meeting to people elected on a temporary basis to fill a particular need. Our community is a model of democratic governance, much like the New England communities that we serve.

The children at Sudbury Valley, from age four and up, by being free, learn how to function as free people in a free society. They learn how to find their own pursuits. They learn how to occupy themselves. They learn how to create their own environments. They learn how to respect each other. They learn how to cooperate. They learn how to use the School Meeting to legislate community rules, and to forge compromises when there are mutually exclusive demands made on property, or on places, or on activities. They learn how to meet challenges. They learn how to overcome failure since there is nobody there to shield them from failure. They learn how to try something and relish success, and they learn how to try something and fail at it – and try again. All of this takes place in an environment in which there is absolutely NO outside intervention of curriculum, of guidance, of grading, of testing, of evaluation, of segregation by age, or of the imposition of arbitrary outside authority.

The school has now been running for twenty four years. It has in it children of all ages. We have 125 students now and we have an incredible record of fiscal success as well as educational success. When we first started, people looking

in from the outside said that if children have a real say in financial matters, their inexperience will lead them to squander the resources of the school in a profligate manner. They'll buy candy. They'll waste their money on trivialities. The facts speak otherwise. The ability of children to govern themselves is in no way less impressive than that of adults. Our school has never received one cent of government subsidy, endowment, foundation money, or any other outside funds. It is totally tuition-based. The tuition in 1968 was on a par with the public school expenditures in the schools around us – \$900 per pupil. Today, 24 years later, at a time when educational costs have soared in other schools, and when all we hear is that not enough money is being spent on education, Sudbury Valley School costs about \$3000 per pupil, less than half the per pupil costs of the local public schools. And that's the whole cost, including capital expenses and including all the other hidden costs that other schools write on different sets of books. The tremendous efficiency of our fiscal operation is due entirely to the manner in which decisions are made by the entire school community, and due to the extraordinarily modest expenditures *required by students* who are eagerly and intensely pursuing their passionate interests.

Educationally, the Sudbury Valley School has had a remarkable record. The students are bright-eyed, intelligent, articulate, and are equally comfortable conversing about ideas, climbing trees, hanging out with children ten years older or ten years younger – even with adults. They have mastered pursuits as varied as calculus, photography, French

horn, skateboarding, pottery, poetry, bookkeeping, pathology, backwoods survival, leatherworking, carpentry – the list is almost as long as the number of people who have been enrolled. Despite the fact that when we started people said that our students who wanted to go on to college would never be admitted, because they had no grades, no transcripts, no school recommendations, our record has been an unbroken one. We have a 100% rate of acceptance into colleges, trade schools, art schools and the like for every single student who has ever wanted to continue their formal education. Our students present themselves to college Admissions Officers as people who are self contained, who know why they want to go on with their studies, who understand who they are, and who have figured out how they want to carry on with their lives. The Sudbury Valley graduate has a degree of self knowledge, self esteem and an awareness of his or her own strengths that is unexcelled in schools today for people of comparable age.

We feel that Sudbury Valley is a superb model of an educational environment for post industrial America. The joy, happiness, pleasantness, friendliness and warmth that extend to anyone who is part of the school community is palpable. Trust, too, is everywhere, and everywhere to be seen. Belongings lie unguarded, doors unlocked, equipment unprotected and available to all. We have open admissions – everyone can attend. And by walking across the threshold, become, in an instant, part of the warmth and trust that is the school.

Sudbury Valley School is a true democratic republic of

children and adults working together. Does it sound utopian? It may, but no less utopian than the United States of America sounded when people first heard about it in the rest of the world. Our school, we feel, is indeed a utopia that is as real as the country of which it is a part.